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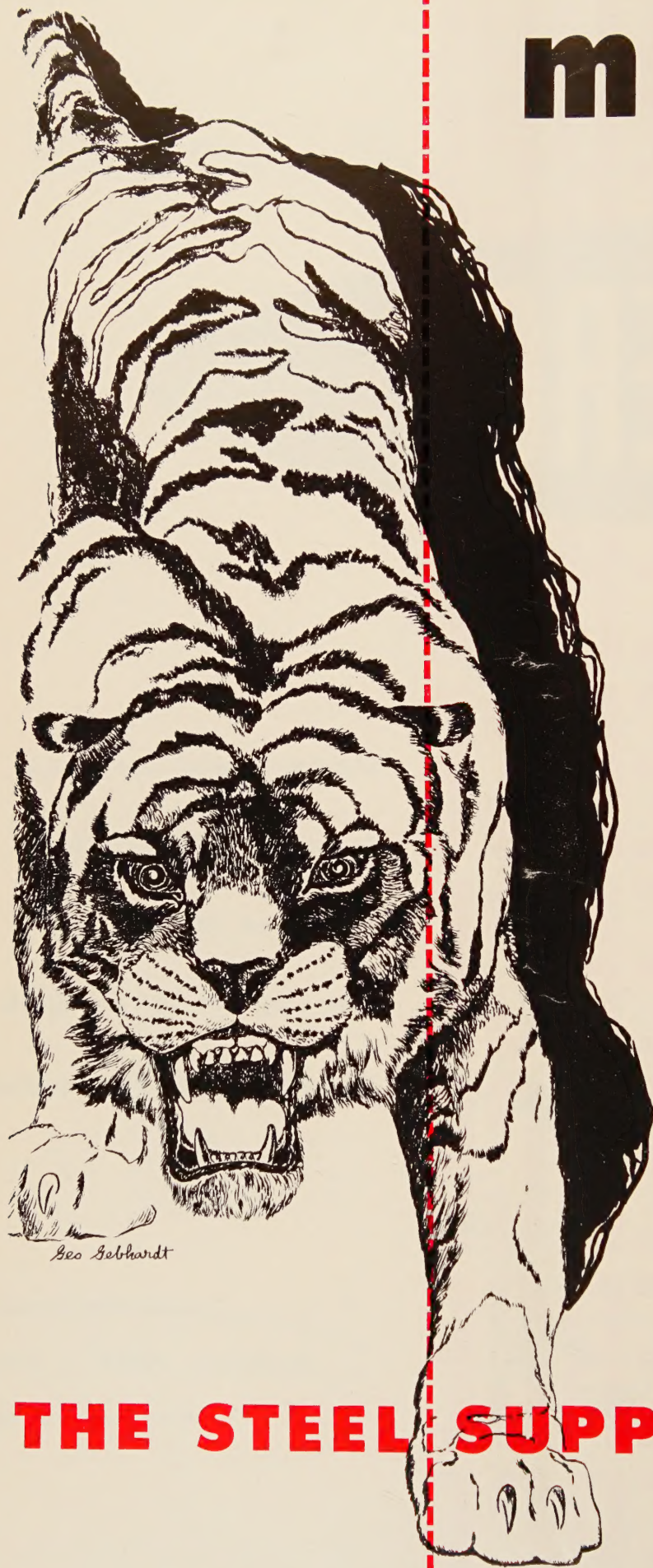
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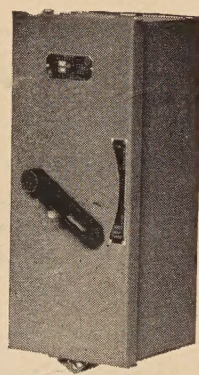
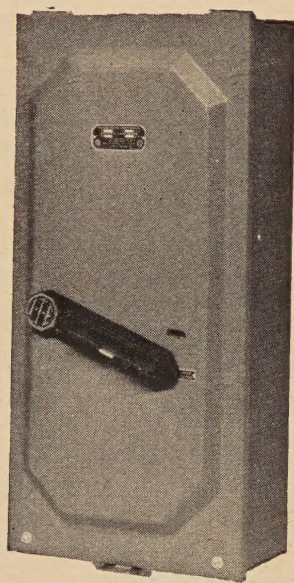
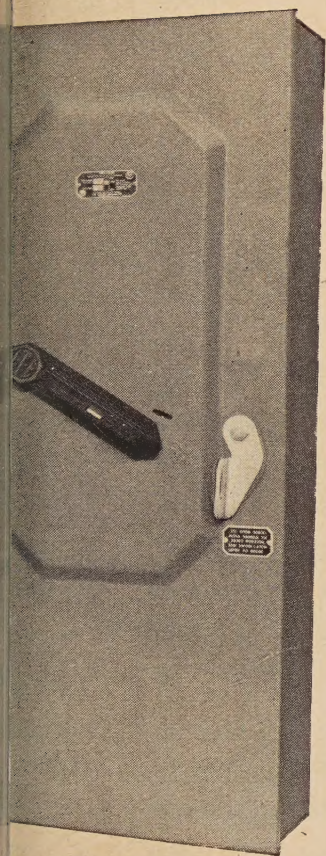
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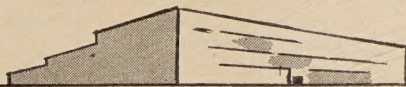
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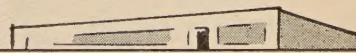
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	August, 1952	July, 1952	August, 1951
Building permits	576	605	1,028
Cost	\$ 12,191,500	\$ 16,483,000	\$ 17,558,470
Contracts awarded on building projects, Cook Co.	1,600	1,852	2,088
Cost	\$ 45,012,000	\$ 64,699,000	\$ 59,638,000
(F. W. Dodge Corp.)			
Real estate transfers	6,663	6,879	7,348
Consideration	\$ 6,278,174	\$ 7,486,537	\$ 5,446,650
Department store sales index	90.7	75.5	88.8
(Federal Reserve Board)			
(Daily average 1947-49 = 100)			
Bank debits to individual accounts:			
7th Federal Reserve District	\$17,851,320,000	\$20,695,223,000	\$19,247,559,000
Chicago only	\$ 8,804,855,000	\$10,671,121,000	\$ 9,371,721,000
(Federal Reserve Board)			
Midwest Stock Exchange transactions:			
Number of shares traded	983,468	1,055,044	1,315,650
Market value of shares traded	\$ 34,265,839	\$ 35,389,096	\$ 39,428,070
Railway express shipments, Chicago area	950,148	900,555	868,000
Air express shipments, Chicago area	52,975	52,092	53,550
L.C.L. merchandise cars	20,685	18,907	20,770
Electric power production, kwh	1,192,231,000	1,121,094,000	1,167,960,000
Industrial gas sales, therms	10,654,363	10,789,696	10,485,600
Revenue passengers carried by Chicago Transit Authority lines:			
Surface division	41,076,900	40,657,581	45,501,500
Rapid transit division	10,822,108	10,903,334	11,907,500
Postal receipts	\$ 10,275,667	\$ 9,318,626	\$ 9,462,000
Consumers' Price Index (1935-39 = 100)	196.7	195.9	190.0
Receipts of salable livestock	366,824	386,343	365,300
Families on relief rolls:			
Cook County	19,839	20,439	21,400
Other Illinois counties	11,762	12,042	13,200

* Preliminary figure.

November, 1952, Tax Calendar

Date Due	Tax	Returnable to
15	If total O.A.B. taxes (employer and employee) plus income tax withheld in previous month exceeds \$100, pay amount to	Authorized Depository
15	Illinois Retailers' Occupation Tax return and payment for month of October	Director of Revenue
30	Federal Excise Tax return and payment due for October, 1952	Collector of Internal Revenue

COMMERCE

Magazine

**Published since 1904 . . . by the
Chicago Association of Commerce
and Industry • 1 North La Salle St.,
Chicago 2, Ill. • Franklin 2-7700**

October, 1952

Volume 49

Number 9

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Alan Sturdy, Editor • Gordon Rice, Advertising Manager • Lewis A. Riley, Associate Editor

Published monthly by The Chicago Association of Commerce and Industry, with offices at James and North Cook Streets, Barrington, Ill. and 1 North LaSalle Street, Chicago 2, Ill. Subscription rates: domestic \$3.50 a year; three years \$7.50; foreign \$4.50 a year; single copies 35 cents. Reentered as second class matter June 2, 1948, at the Post Office at Barrington, Ill., under the act of March 3, 1879. Copyright 1952, by the Chicago Association of Commerce and Industry. Reprint permission on request. Executive and Editorial Offices: 1 North LaSalle St., Chicago, Telephone Franklin 2-7700. Night Telephone: Editorial, Franklin 2-7717; Advertising, Franklin 2-7711. Neither Commerce nor The Chicago Association of Commerce and Industry sponsors or is committed to the views expressed by authors. Cover design copyrighted.

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in this issue... Many businessmen do not realize that long-range planning in virtually all fields of enterprise should now take into consideration the development of atomic energy. So declares Paul J. Lovewell, whose article "Business Planning in the Atomic Era" (p. 13) explores the wide range of corporate activities that will be vitally affected by atomic research. The author, who is assistant chairman of the department of industrial economics of Stanford Research Institute, notes that most businessmen realize that the atom will affect their companies sometime in the future. His article suggests specific ways in which that influence will be felt—perhaps very soon.

• • •

Theodore H. Silbert, president of Standard Factors Corporation, has been analyzing population statistics and they have convinced him that those who feel the "housing boom" is a more or less permanent phenomenon are in for a rude awakening. His article (p. 15) argues that there will be fewer marriages over the next decade and thus a lessening demand for new homes—as well as the wide variety of merchandise that goes into a new home.

• • •

Selling, as every management man knows, is the number one problem of business these days. It's been easy going for a long time, but now every firm must tighten up and freshen up its marketing program. Beginning on page 19, Marketing Consultant Robert P. Elrick offers a check-list covering the most common marketing problems along with advice as to how to attack these problems systematically.

• • •

Emerson P. Schmidt, director of economic research of the Chamber of Commerce of the United States, discusses, with many a humorous sidelight, the growing importance of economic analysis in business (p. 16). The role of private channel television in commerce and industry is discussed (p. 20) by R. W. Barrow, business writer.



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The Editor's Page

Oil Progress Week

From October 12 to 18, Oil Progress Week will be observed throughout the country, an industry recognition that is richly deserved. The petroleum industry has accomplished so much toward the enrichment of life in this nation, that the average person sometimes takes this dramatic record for granted. Now, on the occasion of Oil Progress Week it is appropriate to recall some of the more outstanding facts.

Less than a century ago Pennsylvania was the only oil-producing state. Today, thanks to research and extensive exploration, there are 27 oil-producing states. Fifty years ago motor car fuel was available in a few general stores. Today there are over 200,000 service stations. As for constant cost reduction, consider the fact that it costs less to ship two gallons of gas from Texas to New York than to mail a postcard. And eliminating the taxes on gasoline, which never stop rising, today's motor fuel costs about the same as in 1925 — yet two gallons now do the work that once required three.

Then there's all that talk about a ruinous crude oil shortage. But last year when consumption soared upward, the oil industry found two gallons of new oil for every gallon used. The result is that known underground supplies are now four times what they were 30 years ago. All in all, Oil Progress Week marks a great achievement for the United States and U. S. industry.

The Blue Ballot

Voters of Illinois will have an opportunity at the general election on November 4 to make four much needed amendments in provisions of the state constitution which have stood without change since the constitution was adopted in 1870. The four proposed amendments would make these changes:

1. Eliminate the present requirement that all kinds of property must be assessed on the same basis and substitute a provision permitting the legislature to classify property for taxation.
2. Eliminate the double liability on stock of banks chartered by the state.
3. Permit electors of a county, if they so desire, to reelect a sheriff or county treasurer to succeed himself in office.
4. Eliminate specific salary limits for certain county officials which were written into the constitution in 1870, and place future control of such limits in the hands of the General Assembly.

Reasons for the third and fourth proposals are self-evident. Elimination of double liability on state bank stocks would correct an inequity which has existed since 1937, when double liability was removed from national bank shares. Since then its continuance on state chartered banks has discouraged

investment of additional capital in state banks of Illinois, mitigated against formation of new state banks and encouraged the conversion of state banks into national banks.

The proposal to permit the legislature to classify property for taxation would open the way for an intelligent system of state taxation to replace the existing archaic and grossly unfair method. At present non-income producing personal property is supposed to be taxed on the same basis as income producing property. This is manifestly unfair and therefore unworkable. It has resulted in widespread tax evasion and delinquency. By permitting the legislature to place different kinds of property in different categories each class could be separately and justly taxed. The amendment would not permit a graduated income tax to be levied. In fact, such a tax is expressly prohibited.

These necessary modernizations of Illinois' constitution are to be submitted to voters as separate propositions on a separate blue ballot. For passage, each proposition will require a favorable vote by two-thirds of those voting on the proposition or a majority of all votes cast at the election. Both parties and many leading civic organizations favor adoption of the amendments. Their adoption will constitute a long step forward in modernizing obsolete portions of the state's constitution.

Vote!

As is customary in every presidential election year, the statistically minded are providing us with a lot of figures on the electorate. For instance, we learn that almost 99,000,000 Americans will be eligible to vote on November 4. Of this total, 9¼ million will be young folks having their first chance to vote in a presidential election. Statisticians have also computed that some 13 per cent of eligible voters are over 65 years of age.

These facts are interesting but not too significant when only about half of the voters actually exercise their franchise as was the case in 1948. Although we regard ourselves as the leading democracy of the world our democratic allies in Western Europe invariably show much higher percentage of their electorates who take the time and trouble to exercise their franchises. The citizen who, because of either indifference or indecision, fails to vote is letting the other fellow elect his government for him. What's more, in recent elections in this country so many have stayed away from the polls that a minority of roughly 25 per cent has done the electing.

Alan Sturdy

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Here...There... and Everywhere

• **"Inventiveness" Pays**—Employees of Westinghouse Electric Corporation at Pittsburgh have come up with 80 per cent more "patent ideas" this year, and the company believes the marked rise in "inventiveness" can be traced to a new award plan under which an employee can win as many as four prizes for an outstanding idea. Under the plan, each employee submitting a written description of an invention or idea believed to be patentable receives \$25 if it is considered meritorious by a reviewing committee. He can win an extra \$200 if his idea is judged the best among his particular group of employees, and another \$50 if Westinghouse applies for a patent on the invention. Finally, he can win a special award ranging up to \$5,000 (which may later be repeated), if the invention proves of "outstanding commercial value to the company." In the first seven months of this year Westinghouse paid out \$95,000 in awards for such "inventiveness."

• **Back Pay Bottleneck**—Millions of dollars in potential back pay awards are piling up against employers because of prolonged delays in securing decisions from the National Labor Relations Board. Commerce Clearing House reports that on the average more than 400 days are taken to process an unfair labor practice case. When, as often happens, a union charges an employer with illegal discharges and the NLRB upholds the union, the employer may be ordered to pay his workers all wages from the time he illegally discharged them.

• **Add Tax Woes**—Railway taxes in the last 10 years, reports the Missouri Pacific Lines, exceeded total expenditures of the federal government from George Washington's time right through the ad-

ministration of Grover Cleveland in a period of 98 years! These expenditures included the entire costs of the government of the Indian War, the war against the Tripolitan pirates, the War of 1812, the Mexican War, and the Civil War.

• **Unusual Ad Medium**—Although newspaper "want ads" are usually regarded as the principal medium for buying or selling a house, two leading Chicago realtors now report that their biggest business-producing medium is the classified telephone directory. Louis B. Beardslee, who specializes in industrial properties, and Sadler and Hultman, Inc., of Evanston, which specializes in residential property, have made the interesting discovery that many businessmen coming to a new city to look for a home or a plant location first consult the telephone directory in their hotel room. This practice, say these realtors, has made the classified directory their best real estate medium.

• **Gyp Warning**—Home owners in over 40 cities are being gypped into expensive renovation jobs, according to the Northwestern National Life Insurance Company, by the old "model home" trick. The scheme is to get home owners to sign up for any of a number of different types of jobs—imitation brick siding, asbestos siding and roofing, basement waterproofing, even complete renovation jobs—at a "special low price," after which the buyer is promised a commission on all future sales which result from showing his "model" job to others. "Actually," says the insurance company, "the victim is merely 'suckered' into signing a standard contract for the work, and in many cases is charged double what an honest contractor would bill for

(Continued on page 32)



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Trends . . . in Finance and Business



• **Big Little Publishers**—Most folks are acquainted with the fact that almost every business gets out some form of a company publication for its employees, customers and stockholders. But few realize the tremendous size of this specialized publishing business. Recently, the International Council of Industrial Editors surveyed company publications and turned up these arresting facts: all company publications taken together now have a combined monthly circulation of 70,718,860—30 per cent more than the circulation of all U. S. daily newspapers and four times larger than the four leading general magazines; an estimated \$112,373,820 is being spent annually on some 6,500 company publications.

The survey further disclosed that although a few company publications are 95 years old, over 60 per cent of those currently published are less than 10 years old. Individual circulations vary widely. Many a two-page newsletter is issued to less than 100 employees, while some publications actually have mass circulation. The *Ford Times* is sent to 1.5 million families, and General Motor's *Friends* reaches 1.4 million homes.

Today, most companies prefer a magazine type publication, according to ICIE survey. Three out of every five are of this format, whereas in 1948 company publications were about evenly divided between magazines and newspapers.

• **Another Tax Peak**—State tax collections reached another all-time high of \$9.8 billion in the 1951-52 fiscal year, according to Commerce Clearing House. The increase was more than 10 per cent above 1951 when the collections were \$8.9 bil-

lion. Furthermore, across the nation the average per-capita cost of state taxes increased to \$64 last year against \$60 the previous year.

Citizens of Louisiana and Washington shared the highest per-capita tax burden in fiscal 1952—\$100. New Jersey retained the distinction of collecting the lowest per-capita tax—\$36. The per-capita levy in Illinois was \$52.

• **Bank Lending Up**—Illinois banks are serving a record number of people through installment credit with some 387,385 borrowers now owing \$219,592,322, or more than 22 per cent of the total loans of the reporting banks. So reports Kenneth R. Wells, president of the installment lending division of the Illinois Bankers Association, which has just completed its third annual survey of the installment loan volume of Illinois banks. Mr. Wells, who is vice president of the American National Bank and Trust Company of Chicago, adds that the installment loan portfolio of the average bank increased about 10 per cent in the past year, a rise he believes is chiefly due to larger loans required under current price levels rather than as a result of the revocation of Regulation W.

The IBA survey included figures from 229 banks with resources under \$10 million, and for these banks installment loans represented 30 per cent of their total loans. Personal loans accounted for more than 37 per cent of the total; automobile loans, 23 per cent; and farm equipment loans, 16 per cent—with the remainder being home modernization, machinery and equipment, and appliance and furniture loans.

In larger banks, with resources

over \$10 million, auto loans accounted for 45 per cent of the total of \$153 million of installment loans. Home modernization represented 24 per cent and personal loans approximated 10 per cent. With the larger banks in the cities, their farm equipment loans represented only two per cent of outstanding installment credit.

• **"Hidden" Costs Rise** — "Hidden payroll" costs of 736 companies surveyed by the Chamber of Commerce of the United States reached a record high average last year of \$644 per employee. Of these companies, 138 had participated in two previous U. S. Chamber surveys covering the same "hidden" outlays and among these firms such payments had jumped 66 per cent in four years, or from \$410 to \$681 for each employee!

The U. S. Chamber figures, on the basis of its survey, that the national cost of industry's "hidden payroll" now approaches \$25 billion a year. The costs to the 736 companies surveyed averaged 18.7 per cent of their entire payrolls or 31.5 cents per payroll hour. The "hidden payroll," as analyzed by the U. S. Chamber, includes such employer outlays as social security; unemployment and workmen's compensation; sickness, accident, hospitalization and death benefits; terminal pay; purchase discounts; free meals; pensions; savings and stock purchase plans; paid vacations, holidays, rest and lunch periods; and profit sharing and bonus plans. Not included, however, are extra pay for night shift and Sunday work or straight production bonuses, all of which are regarded as part of a company's regular payroll.

In commenting on its study of fringe benefits, the U. S. Chamber notes that the bulk of industry's \$25 billion "hidden payroll" costs is not reported by the Bureau of Labor Statistics, which is, of course, the government's primary spokesman on prevailing wage rates. Only in the steel industry has BLS ever reported fringe benefits, and such reports have been made only occasionally.

• **Anyway, They're "Rare"** — There's a good chance you'll be using more ytterbium, and perhaps

(Continued on page 28)

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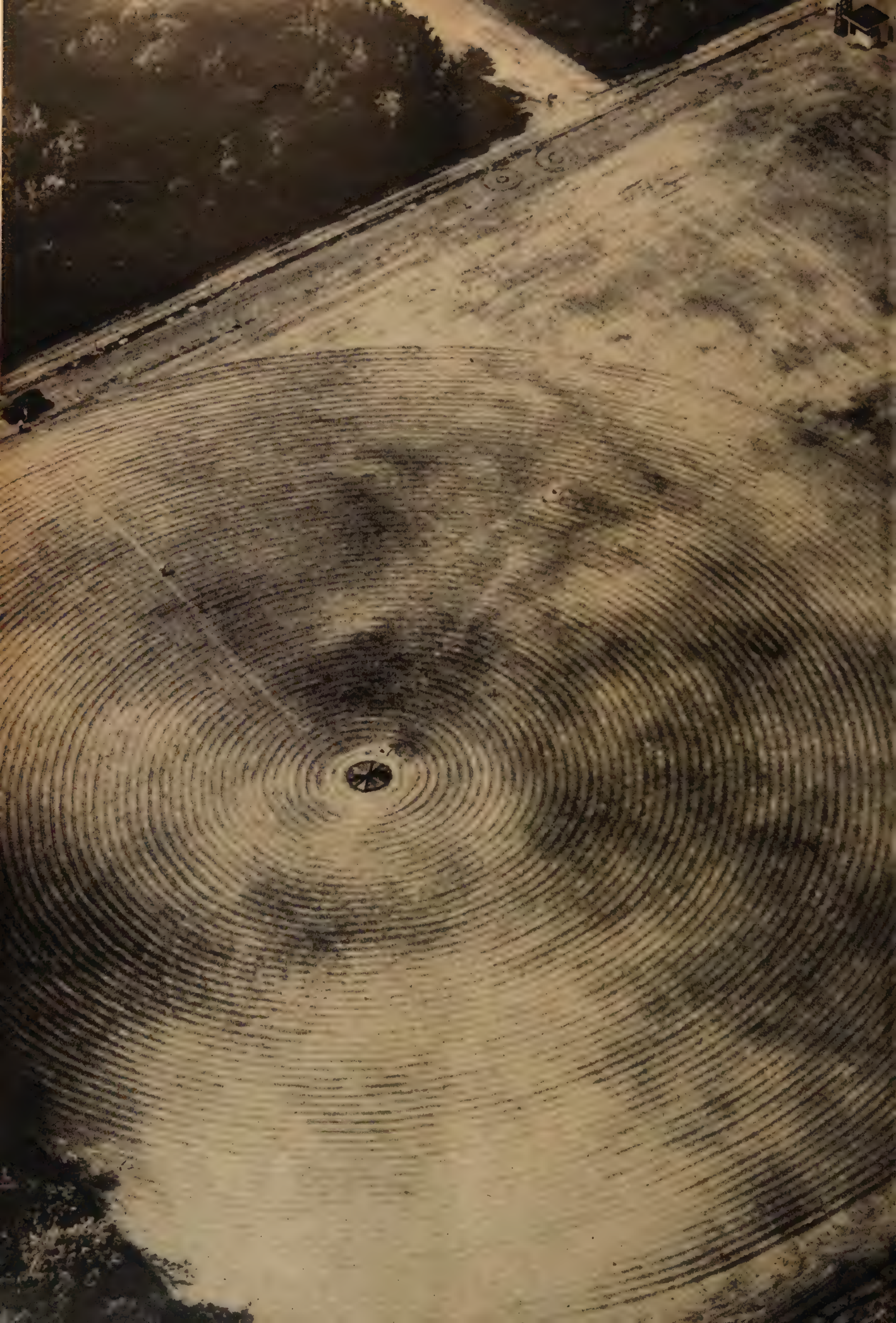


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Business Planning in the Atomic Era

By Paul J. Lovewell

Warning from an expert: the potentialities of atomic energy must now be considered in all long-range plans

MANY businessmen have begun to realize that their businesses may be increasingly affected by technical developments emerging from the atomic energy program. Thus, my purpose is to discuss what the atomic age is likely to mean to business management within the next few years and over the long pull. This involves two major questions:

What is going on technically that may affect business directly?

What new management problems may arise as a result of trying to operate in a field that is so new, so tremendous in its potential import, and so completely dominated by the government?

Neither question is simple to answer. And the questions must be based largely on speculation. But speculation that is, in turn, based upon a representative cross-section of information coming from people working in the field of atomic development.

As for the first question, the current technical developments that will affect individual businesses are of three types. First, there is the development of heat-producing atomic reactors for the production of power. Second, there is the pos-

sible use of the fission by-products as a source of energy for such diverse purposes as cold sterilization, industrial radiography, and activation of phosphors. Third, there is the employment of pile-produced radioisotopes for such uses as industrial research and control.

All three of these industrial potentialities are in the nature of by-products of atomic reactor operation. As matters stand today, the real purpose of the reactor is to make plutonium. When you make plutonium, you also produce heat, waste radioactive materials — the fission by-products — and neutrons that can be used to bombard other materials to make radiosotopes.

Atomic Power?

Some day this may not be so with respect to the production of power from the heat generated in atomic fission. Scientists and engineers may soon solve the technical and economic problems standing in the way of competitive electric power from atomic energy when produced as a by-product of fissionable materials. Others feel the day is not too distant when an atomic power industry could exist profitably without depending on the production of a

crucial and expensive defense material.

A number of private concerns have been studying this problem for over a year. Up to now, we have only general information as to their findings, but they are sufficient to indicate a trend. It seems fairly well established that production of power is technically feasible, but will be economically sound only if a sufficiently high price can be obtained from sale of the main product — plutonium. In view of the seemingly insatiable demand for plutonium by our government, the proposition of producing and selling plutonium to the government while making power for general distribution would seem to have attractive possibilities.

In fact, two companies studying the power possibilities of atomic energy, Monsanto Chemical and Union Electric, have proposed that the Atomic Energy Commission embark on the design and construction of a pilot plant reactor to produce electric power as soon as possible. According to Edwin J. Putzell, Jr., secretary of Monsanto, the companies believe a joint investment of effort and skill is called for, involving both government and private industry. And he adds the forecast that nuclear-generated power is perhaps only four to five

Brookhaven Laboratory's "hot arm" where influence of radioactive materials (center disk) on growing plants under observation. U. P. Photo

The author is assistant chairman of the department of industrial economics at Stanford Research Institute, Stanford, Calif.

years away, measured in terms of full-scale producing units!

This statement is certainly one to bring far-sighted business management to attention. If full-scale producing units are in operation within five years, then 10 or 20 years may well see some profound effects upon our industrial economy, especially in areas that are short in low-cost power. The introduction of a vast potential in power supply, using a fuel that is so light and compact as to be readily and economically transportable, even to distant locations, could have an almost revolutionary effect upon our economy generally — and even the remote possibility of such a thing can well have its immediate effect upon the plans of businessmen.

Use of Fission Products

The second area of technological advancement is in the potential industrial application of radioactive by-products of fission. These materials, now regarded as wastes, are in storage in millioncurie quantities at various AEC installations. Their potential availability as a source of large-scale, low-cost radiation opens a field of technological advance that is expected to have importance to many lines of business.

A few months ago the Stanford Research Institute in California completed a study for the AEC designed to evaluate preliminarily the technical and economic feasibility

of using fission products industrially. This study concluded that, while many problems remain to be worked out, the large-scale use of fission products by industry can become a reality through the cooperative effort of industry and government.

Assuming such cooperation, the Stanford group forecast that no more than five years should be required to develop commercial applications such as high-speed, low-cost industrial radiography and the sterilization of food and drugs without heat through exposure to radiation from fission products. Inspection processes in the metal industries could be vitally affected by such developments in radiography. Cold sterilization of food and drugs would be important, when the items to be sterilized are adversely affected by normal heat sterilization processes.

Other longer term possibilities that seem especially attractive for industrial use of fission products are portable, low-level power sources; improved propagation of flame, as in internal combustion engines; and the activation, or "triggering," of chemical reactions. These are but a few of the possibilities; still more important uses may result when fission products are available for experiment and use.

The third technological advancement that will affect industry involves the industrial use of radioisotopes. Already isotopes are being used in instruments of various sorts:

thickness gauges, liquid level gauges and density meters. They are valuable in the activation of phosphors and for static elimination through ionization of the air around a static source. In the laboratory isotopes used as tracers enable scientists to trace the course of atoms through complex processes, thereby understanding many processes and reactions better than has ever before been possible.

Benefits to Industry

But these examples are only a smattering of the total possibilities. Examined from a business management viewpoint, however, they are sufficient to establish the widespread potential of this phase of the atomic energy program upon industry.

Thus the technical developments that will affect business can be summarized as follows:

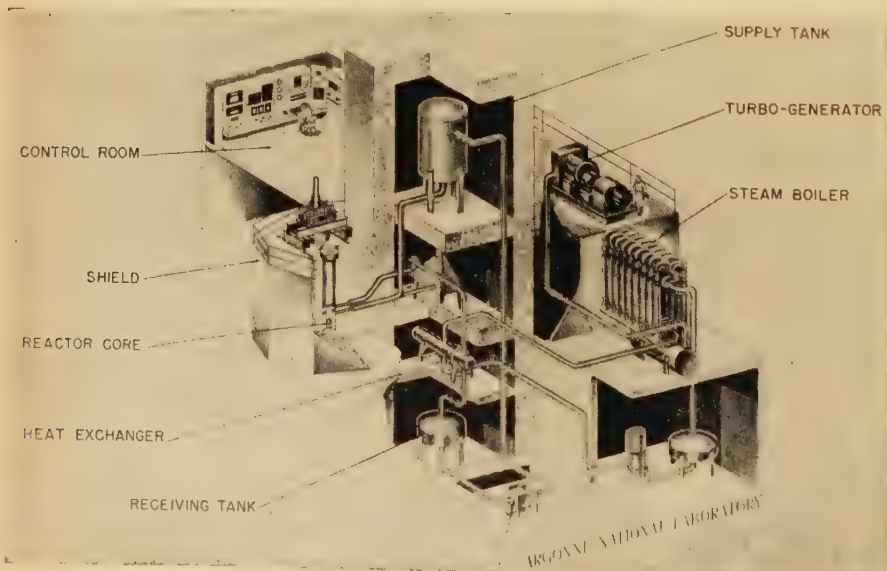
1. Potential developments in atomic power, in improved industrial processes, improved instrumentation, and improved industrial research techniques, are bound to have an eventual impact of major importance upon practically every segment of industry.

2. Manufacturing and processing concerns will be the first and most directly affected, along with power producing utilities, in the case of atomic power. Conventional processes will doubtless persist, but the introduction of atomic power as processes sired by the atomic energy program may begin on a moderate scale within five years. In 10 or 20 years, the effect upon business should be sufficient to be generally felt.

3. The immediate problem for business management is to keep informed as to exactly what is known and being done that will affect their future plans. Management must originate or approve research programs at least sufficient to protect their competitive interests. With the knowledge that is available, management must begin to consider atomic energy and its by-products as a factor in planning longterm programs, especially those that involve major investments in plant and equipment.

4. Managements need have no fear that foreseeable developments from atomic energy will replace them.

(Continued on page 24)



Simplified drawing of experimental breeder reactor operated by Argonne National Laboratory at its Arco, Idaho, testing station. The "EBR" has a very small reactor core about the size of a football, but extensive heat conversion equipment. Experiments may determine whether atomic power can be produced economically.



HOLIDAY FOR CUPID?

A 10-year marriage slump will ease demand for housing

By Theodore H. Silbert

NOT many business executives realize that the next eight to ten years will bring a decided re-emphasis on housing, home furnishings and home appliances. That statement is based on a survey, recently completed by our firm, among 158 companies which manufacture and market building materials, home furnishings and electrical appliances. Yet the facts are almost as crystal clear as a census report. For example:

During the next 10 years there will be considerably fewer marriages than took place in the last 10 years.

There will also be less pressure for new housing and a corresponding drop in demand for many products that go into homes and apartments.

These facts, plus our survey results, offer rather convincing evidence that many manufacturers of housing materials and home furnishings and appliances who expect

The author is president of Standard Factors Corporation with offices in Chicago, New York and Los Angeles. Standard Factors is a commercial finance company, dealing principally in accounts receivable financing and factoring.

sales to remain at, or very near, the record high levels of 1948-1951 may be in for some unpleasant surprises. Many of these manufacturers believed that the market dip of last year and the spring of 1952 was temporary. The truth is, however, that smaller markets for such products will be with us for most of the next decade. Here's why.

The Postwar Boom

There were 34,949,000 households in 1940 and 44,564,000 households in 1951. This whopping, 28 per cent increase in the number of households gave the postwar business boom a big push. Ordinarily, 500,000 to 600,000 additional households would have been formed each year. But in 1947, the actual net growth was 1.6 million households; and in 1948, 1.4 million. This year it will be about 1.2 million.

In the last five years we have seen a net increase of about six million new households. This record growth has not only stimulated home building and the sales of every conceivable home necessity, it has also increased consumer cred-

it and the demand for automobiles.

But will the creation of new households continue at this phenomenal rate? The answer is, "very probably no." Marriages, which, of course, are the fundamental stimulus for the creation of households, have dropped off sharply from their 1946 peak. Here is the record for recent years:

1940	1,565,000
1946	2,300,000
1947	1,992,000
1948	1,815,000
1951	1,550,000

In marriages, we are thus below the 1940 level, and fewer marriages mean fewer households.

Furthermore, the number of people in the "most marriageable" age has also dropped, according to census estimates. Young folks who are now 20-24 years of age were born in the late 'twenties and early 'thirties — a period during which the birth rate was falling. During the next six years, the 20-24 year old age group will be about 10 per cent below normal expectations, according to census forecasts. By 1956, for example, there will be about a

(Continued on page 35)



By Emerson P. Schmidt

Economics — in One Easy Lesson!

HERE IS A BEGINNING, AT LEAST, TO "ECONOMIC UNDERSTANDING"

MAX PLANCK, one of the greatest physicists of all time, said that he could learn all the mathematics used and useful in economics in a couple of weeks, but that he never could learn to understand economics. A later critic has even improved on that quip, "Teach a parrot to say 'supply and demand determine price' and you have made an economist of it."

Perhaps the truth lies somewhere between the two. To get the most

out of economic understanding requires patient, persistent, and pervasive attention to an infinite array of facts and forces and their interrelations.

But it is not too hard to make a beginning. There is an important difference between business trends and economic trends. The former deal with production, sales, costs, profits, tax accruals, and so forth. Economic trends deal with underlying forces, basic causes, government policies and programs, political forces and political trends, union ideologies and demands, fiscal and

monetary policies, bank reserves and bank lending trends, including such obscure matters as not only the interest rate but the interest rate structure, foreign policy, foreign exchange rates, foreign trade controls.

In short, economic analysis is concerned with all those basic forces and factors which shape the economy rather than with specific components of this or that business industry.

The nature of economic analysis may be indicated by the dichotomy reflected in the fact that, in t

The author is Director of Economic Research of the Chamber of Commerce of the United States.

1930's, we were widely told that high taxes were deflationary, and yet today we are told that high taxes are inflationary. Was one or the other view wrong, or were both correct? If the average businessman had been asked in the 'thirties what could happen to our economy if we had a 52 per cent corporate income tax plus an excess profits tax, he would certainly have predicted destruction, unemployment, and mass misery. Are we today on the threshold of these dire consequences? Again, is the recent steel-age-price-increase fiasco inflationary or deflationary? Why is our economy healthier or less healthy than in 1929?

It is the job of economic analysis to understand and explain. Everyone must be something of an economist. The businessman demands something more than facts and figures; he wants interpretation, assessment of trends, "the meaning of meaning."

The businessman is a doer, a man of action. The economist is inclined to sit on the fence! The busi-

nessman must get the facts as best he can, then make a decision and live with it. The economist, who always has something of the professor in him, says, "There is this to be said on this side of the question and that to be said on the other side." Then the bell rings!

Recently the chairman of a mid-west university economics department sent one of his colleagues to the east to survey new methods of teaching economics. At one of the eastern Ivy League universities the economic department head told the midwest professor, "In this university we give students year after year the same set of questions in their final examination." The visiting professor scratched his head in bewilderment, until his host added, "Oh, I see what bothers you. Yes, we give exactly the same set of questions year after year — but we change the answers!" What's true in the short run may be completely false in the long run.

If, for example, the United Kingdom should suffer a meat famine, what would happen to the price of fish? The obvious answer, "it would rise." But in the long run, if labor and fishing gear are abundantly available and if the fishing industry is a decreasing cost industry, a meat famine might ultimately lead to lower-priced fish. This explains why economists and economic analysts don't always come out with the same answer. I try never to forget that the foremost economic expert in Siam was called Prince Dam Rong!

Role In Business

A decade or two ago one could count on the fingers of two hands the known economists employed by business. Today, most large manufacturing companies, the larger stores and retail chains, banks, insurance companies, many trade associations, and some local chambers of commerce have staff economists or employ them part-time.

A recent survey of 100 companies disclosed that about 36 employ one or more full-time economists, more than 20 retain an outside economist, and more than 50 subscribe to some packaged economic service. The business economist is an emerging profession because business executives feel the need of more eco-

nomic analysis and deeper economic understanding.

Now there is this to say about economists: they do not necessarily make good business administrators or even policymakers. Their greatest usefulness is in getting facts, and assessing the forces that operate upon a company, an industry, and the whole economy. Economists should be in an advisory capacity, a consulting capacity, rather than in an operating capacity. It might be added that a number of business economists who have come up through the ranks are outstanding business executives, and more and more companies are giving them the status and recognition of company officers.*

Considering all the activities that

*The reasons for and how to use economists in business were extensively explored in *Business Management and Economic Analysis*, Chamber of Commerce of the United States, Washington 6, D. C., 16-page pamphlet, 25 cents.

(Continued on page 23)



To understand the forces that shape business and our destiny it is . . .



. . . necessary to understand money, banking, credit, and fiscal policy"

MEMO ON MARKETING:

Approach today's biggest business problem systematically with a check list

By Robert F. Elrick

SELLING is today's number one problem of American business.

A decade of easy living for salesmen and sales managers has dulled the marketing techniques of thousands of companies. Now with competition stiffening in almost every field of enterprise there is a scramble to sharpen up, to reappraise, to plug the loopholes.

Recently our firm surveyed 200 large and small business concerns across the country in an effort to find out, specifically, what major marketing problems are currently on the minds of business management. We found that, boiled down, management is confronted with 27 major marketing problems.

Almost all companies realize that they are facing difficult marketing problems. We discovered that most firms, and certainly the successful ones, are systematically developing solutions to these specific problems. On the other hand we discovered that some firms apparently refuse to search for the facts and are merely stabbing in the dark hoping for a lucky hit.

The following is a discussion of these 27 important marketing problems and the efforts that progress

sive firms are now making to solve them.

1. Economic Trends. A new economic trend, or technological development, if properly appraised and interpreted, can open the door to new business. It may suggest a new product, a new service, or a new mass market for present products. Or it may lead to new methods of distribution and selling.



"... an economic trend can often open the door to business"

A marketing plan, based on sound economic trend data, can help develop economies that will reduce a company's cost of doing business. Most companies could well afford to appropriate more time to economic analysis.

2. Industry Growth. Some industries are in their infancy, some are in adolescence, others are in their "declining years." Since the war the

diesel locomotive has very nearly superseded the steam locomotive, but some companies failed to gauge the effect of this technological development. They were caught with obsolete inventories. Even worse, they failed to develop a line of products to replace the "iron horse."

What do you actually know about the growth potential of your industry? Your company's future may be in real danger if you do not have long-range marketing plans based on long-range thinking.

3. Potential Customers. The ultimate customer is the key to every marketing problem. A bewildered manufacturer of industrial painting equipment once asked us to find out why he was losing his regular customers. It was discovered that his so-called "regular" customers were merely buying his equipment while competitors' products were in short supply. His loyal customers were in the institutional market, which he wasn't trying to cultivate. A revised marketing program, based on this fundamental fact, has completely rejuvenated his firm.

How well do you know your ultimate customers? How and where do they buy? What causes them to buy a particular brand or make? If you don't know the answers, take immediate steps to find out!

The author is president of Elrick, Lavidge and Company, consultants in marketing research.

A CHECK LIST FOR TODAY'S MARKETING PROBLEMS

By checking this list of 27 common marketing problems, you can determine those which need immediate attention in your company, those which can be attacked during the next year, and those which require attention over the longterm future. Such an analysis provides a systematic approach to today's number one business problem.

- ☐ **Economic Trends:** How will economic trends and technological progress affect sales in your industry?
- ☐ **Industry Growth:** How fast will your industry grow in the next 5, 10 or 20 years?
- ☐ **Potential Customers:** What kind of customers ultimately buy your products and what are their buying habits and attitudes?
- ☐ **Marketing Activities of Competitors:** What are your competitors doing to get more business and how big is their share of the market?
- ☐ **Market Expansion Opportunities:** Where can you get more customers and how can you get present customers to use more of your products?
- ☐ **Product Line Diversification:** Will greater product diversification bring you new opportunities?
- ☐ **Customer Product Requirements:** What kind of products or services do your potential customers require?
- ☐ **New Product Possibilities:** Which new products and by-products would best fit your company's financial, production and marketing requirements?
- ☐ **Package Suitability:** What kind of a package will give maximum utility, visibility and sales appeal?
- ☐ **Product Names and Symbols:** Which brand name is best and what kind of an identifying symbol should be used?
- ☐ **New Product Introduction:** What is the best method of introducing a new product or service?
- ☐ **Pricing Policies:** What prices must you adopt to meet your costs and the competition?
- ☐ **Service Policies:** What repair and parts service must be maintained?
- ☐ **Sales Forecasting:** How much will you sell next year — in the next five years?
- ☐ **Sales Quotas:** What sales goals should you shoot for?
- ☐ **Sales Territory Design:** Where should your sales territory lines be drawn?
- ☐ **Sales Operating Cost Reduction:** How can you further reduce sales operating costs?
- ☐ **Sales Channels:** What kinds of wholesale and retail outlets are most profitable?
- ☐ **Personal Selling Methods:** What can your salesmen do to make their sales efforts more productive?
- ☐ **Sales Aids and Materials:** What tools can you give your salesmen that will increase sales volume?
- ☐ **Sales Training Program:** What kind of a sales training program would give you the best results?
- ☐ **Sales Compensation Plans:** Should you have straight salary, commission or both?
- ☐ **Sales Personnel and Facilities:** To reach your sales objectives how many and what kind of salesmen do you need?
- ☐ **Customer and Dealer Promotions:** How important are promotions to your business and what kind should you have?
- ☐ **Advertising Sales Messages:** How can you compel prospects to listen to your sales story?
- ☐ **Profitable Advertising Media:** Where shall you tell your story to reach the greatest number of prospects?
- ☐ **Public Relations:** What is a sound public relations program for your company?

4. Marketing Activities of Competitors. Most businesses find they have to dig, and dig hard, for the solid facts about competition. Dealers, distributors and salesmen often lack the background information and analytical ability to make an accurate appraisal of the competitive situation. A manufacturer of refrigerators, freezers and other kitchen appliances, for example, recently cited one sales division for outstanding performance. Yet a subsequent survey revealed that the competition had boosted sales even more sharply. In other words, the prize winning division was actually losing its share of total available business. Instead of an award the division manager should have been told to go to work!

5. Market Expansion Opportunities. Henry Ford found that the way to enlarge the auto market was to

develop mass production methods and produce a car within the price range of the average man. The soft drink industry found that increased



"... you have to dig for solid facts about competition"

competition and advertising expanded the market for all bottlers. Popcorn and food snack producers suddenly discovered that sales were

booming in television areas, because viewers wanted to munch on something at home just as they did at the theater. There are good reasons why dentifrice advertising says, "Brush your teeth twice a day" — the market could be vastly expanded if everyone brushed his teeth just once a day.

Are you systematically looking for similar ways to expand your total marketing opportunities?

6. Product Line Diversification. Companies, like trees, rise from the seeds of ideas, but by the time they reach maturity many have allowed other companies to surround and succeed them. A progressive organization like General Mills, Inc. shifts emphasis years before it reaches the end of one product line. It develops new products, thereby

(Continued on page 41)

You, Too, Can B

WHEN stockholders of Foo Mineral Company, meeting at the company's home office in Exton, Pa., this year, were told they were going to be taken on an extensive tour of the company's properties, several older men in the group of 200 sighed, while others glanced at their watches wondering if they could spare the time for a long inter-plant junk

Then L. G. Bliss, vice-president in charge of sales, announced that the streamlined tour would be accomplished quickly without anyone having to leave his seat. The surprised stockholders eased back in their chairs, while Mr. Bliss took them on a tour of ore processing lines in Africa, the company's new holdings in Kings Mountain, near Charlotte, N.C., and the Exton plant.

Stockholders' Show

Watching 17-inch television receivers, stockholders saw the processing of African lepidolite ores to obtain lithium products to be used for special types of glass in the manufacturing of lubricants and ceramics, the quarrying and processing of ores at Kings Mountain and finally ore processing operations at the Exton plant. They saw close-up views of complex operations and equipment used in processing zirconium, which is used in radar, TV and jet engines, and the processing of minerals to produce welding electrode coating materials.

The "tour" over, the stockholders burst into enthusiastic applause. They had seen, in the words of Mr. Bliss, how their invested dollars "have been translated into bricks, steel, mortar and machinery."

This unique presentation was accomplished with the use of special television equipment designed for industry, equipment which appears destined to play an important part in many phases of business in the near future, a role even as great as that which broadcast television is playing in the home.



Suspended TV camera (above) enables Babcock and Wilson Tube Company worker to control the pouring level and check uniformity of billets in the casting of continuous steel billets in a company plant.

**Industrial TV is growing every bit as
fast as its glamorous studio forebear**

a TV Star -- Industrial, That Is!

The presentation at Foote Mineral Company was handled by RCA Victor portable television gear, valued at \$80,000. Four large orthicon field cameras were set up in strategic and widely separated locations on the company's 81 acres. Twelve 17-inch receivers were placed in the cafeteria where the stockholder meeting was held, and a central control and monitor station installed in a nearby plant building. All pieces of equipment were connected by cable. Mr. Bliss sat in the monitor station supplying introductions and continuity to relate the sequences of the program.

Many New Uses

Production, pickup and transmission were handled by six RCA Victor engineers and two members of that firm's global television production crew, which have pioneered many new applications and made demonstrations of industrial television throughout the United States and even in foreign countries.

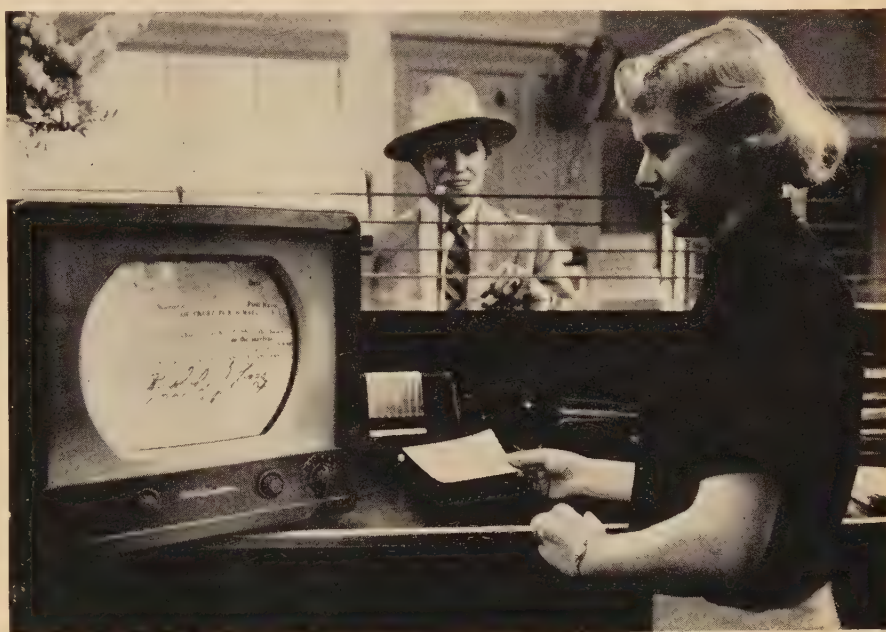
As Vice President Bliss said later, "Industrial television provides a unique means of showing stockholders what is being done with their money and how their investments are being protected and enhanced without wasting their time and energies and those of company officials in traveling. Further, it presents a dramatic vignette of a company's operations that is more

By R. W. Barrow

impressive and understandable than an actual plant tour."

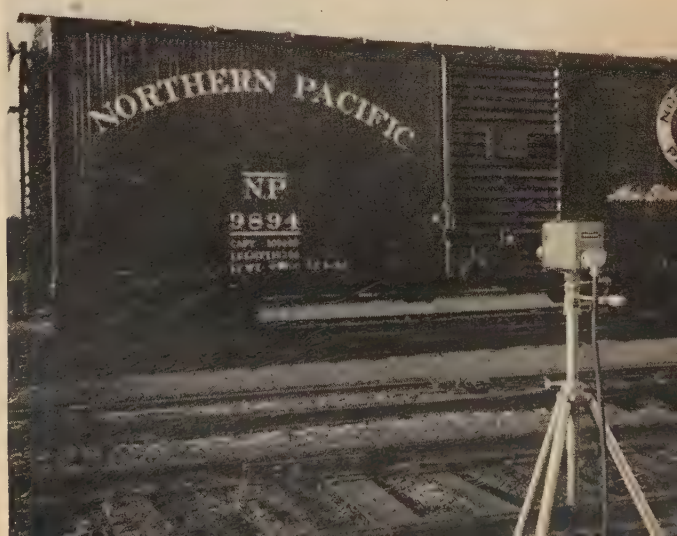
The use of TV at stockholders' meetings is only one application of the versatile new medium in the business world. Industrial television has been used, or is being experimented with, in mining, steel proc-

essing, transportation, manufacturing, research, even in banking. The four major firms now manufacturing or experimenting with industrial TV equipment are RCA Victor, Allen B. DuMont Laboratories, Inc., Remington Rand Corpora-



Bank Teller at the Loyola Federal Savings and Loan Association in Baltimore checks signature on TV screen, flashed from camera located on lower floor of building where permanent records are maintained.

(Below) Baltimore and Ohio Railroad yard clerk records freight car numbers transmitted by television camera located in B & O's Barr Yard at Ashland Avenue and 137th Street on Chicago's southwest side.



tion, and Diamond Power Specialty Company.

Diamond Power manufactures the "Utiliscope" camera, power unit and receiver, and reputedly has sold the most specialized TV equipment to business — primarily to electric utilities for watching water level gauges and the quality of smoke emitting from smoke stacks. The company holds that industrial television can be used "whenever it is too dangerous, too difficult, too expensive, too inconvenient, too inaccessible, too tiring, too far, too hot, too cold, too high, too low, too dark or too small to observe directly."

Can Use Color

Industrial TV differs from TV broadcasting, for one thing, in that it is private, not public communication. Image, plus sound, if desired, is transmitted to select viewers over direct cable, instead of being broadcast to a virtually unlimited audience. Among advantages are freedom from atmospheric and man-made interference, freedom from frequency bandwidth restrictions and other technical limitations imposed on broadcast television, and freedom to use color, whenever desired.

The equipment needed for industrial television may range from a single camera working with a single viewing monitor to many cameras working with many monitors placed in different locations. Diamond Power's "Utiliscope" installation, for example, consists of a camera, a small power unit and the monitor or viewing unit. The total package weighs 133 pounds. The camera picks up the image, which is transmitted by the power unit, through a cable to a monitor or viewer, usually located at a central control point often in a panel with other instruments.

RCA Victor's "ITV-5" equipment consists of a miniature camera, about the size of a home movie camera, and a light-weight monitor, with a 10-inch viewing screen. DuMont's latest equipment is a 10-pound camera, and a complete color system.

The varied applications of television in business and industry cover the fields of commerce and banking, industrial control and testing, medical applications, military

operations, law enforcement, and traffic control. DuMont, which has televised meetings of all kinds, says that under its inter-city plan, closed circuit* facilities can be used to transmit any kind of meeting, particularly sales and advertising presentations, to out-of-town groups of salesmen, jobbers, retailers, and the like. DuMont says that in most cases, closed circuit presentations can be delivered on an inter-city basis for less than the normal travel and hotel bill that would be entailed in bringing a national organization to any central point."

Television has a place in retail merchandising, too, according to DuMont, which recently announced a line of color television equipment for industry, which it believes will be of great value in day-to-day merchandising. The system, known as TA-164-A, not only makes color identification of products possible, but makes small print and patterns, trademarks, and other identifying color combinations stand out in bold relief.

Among retail firms which have used television are the Jordon Marsh department store in Boston, which posts screens at strategic points showing such things as the latest fashions and home furnishings to lure shoppers to different floors and departments, and Wallachs, Inc., a New York chain of men's furnishings, which used TV for sales-promotion purposes recently in cooperation with RCA Victor and Frank H. Lee Co., manufacturers of Lee hats.

Signature Check

To show the possibilities of television in banking — for fast checking of signatures or important documents — RCA Victor recently installed a demonstration unit in the Loyola Federal Savings and Loan Association in Baltimore. By placing a camera where files and documents were kept and a receiver at a teller's counter, it was possible to transmit views of signatures and important documents to the teller in a matter of seconds.

Chicago's Commonwealth Edison Company, and the Northern Indiana Public Service Company at

*NOTE: For a detailed discussion of "Closed Circuit Television," see the April, 1951, Commerce Magazine.

Michigan City, Ind., are among the many electric utilities using television for remote observation of water level gauges. The State Line Station of the Chicago District Electric Generating Corporation uses television to check flue gas emission from smoke stacks.

Steel Mill TV

To control furnace operations, United States Steel Corporation has installed TV units at its Geneva, Utah, plant. There, four "Utiliscopes" watch three furnaces and speed up the reheating of slabs. The equipment enables one man, located at a central point, to push steel slabs into three reheating furnaces, and eliminates the need for an assistant to help spot slabs as they move along a conveyor.

DuMont has pointed out that the steel industry presents "natural applications," especially for color television. Because color is vital in the control of blast furnace and other operations, color television can provide essential information to workmen, foreman, and, what may be more important, to top management. Also, with telephoto lenses, television could bring details of molten metals and fires much nearer to supervisory personnel than ever before.

Republic Steel Corporation at Cleveland uses a "Utiliscope" in connection with a scale and ladle crane operation to show an operator amounts of molten steel poured.

Timken Roller Bearing Company at Canton, O., has a TV installation to enable an operator seated before a control panel to control the flow of steel tubes through both furnace and mill. The camera permits the operator to view the entire operation from a point 80 feet away, to detect any signs of a pile-up, and to adjust conveyor speed in time to avoid one. TV has eliminated the need for a second man formerly required to unscramble tubes when they piled up.

Babcock and Wilson Tube Company at Beaver Falls, Pa., uses a "Utiliscope" to watch the casting of continuous steel billets for the purpose of controlling the level at the proper point to assure uniformity of billet quality.

Although few companies are pres-

(Continued on page 38)

Economics

(Continued from page 17)

business organization executives and their staffs have to perform, sound economic analysis is no easy task. The best approach is to begin modestly, and this may be done in several ways. Economists from nearby universities and colleges might be retained on a part-time basis and given special research tasks. This is a particularly useful approach for finding out those individuals who might constitute timber for permanent employment.

The U.S. Chamber has prepared a guide called *What's The Answer?* — a brief introduction to sources of business and economic statistics, designed especially for the economic research beginner. It lists a number of "one-time" and annual, monthly, and daily publications. Of particular importance are the *Statistical Abstract* (annual, Department of Commerce), *The President's Economic Report*, and the *Report of the Council of Economic Advisers* (annual and midyear), *Survey of Current Business* (Department of Commerce), *Monthly Labor Review* (U. S. Department of Labor), *Federal Reserve Bulletin* (Board of Governors, Washington), *Economic Indicators* (Council of Economic Advisers) — to name only a few.

Leadership Role

Until a few decades ago the businessman was regarded as the leader in the community. He still has much of that acceptance so far as local community affairs are concerned, but the overriding importance of national affairs and particularly economic affairs has resulted in a lack in the preparation of many businessmen to exercise this leadership in terms of tough, serious, and complicated national problems. Just as formerly the business executive brought into his enterprise accounting experts, engineers, attorneys, so now he feels compelled to call on this new profession — the business economist.

The Freeman on December 31, 1951, made this comment on the changed situation:

"Few practical businessmen realize how economic and social ideas originate and spread, because they

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All fans are insured against fire, theft or damage. Guaranteed to work properly for one year. If fan fails, we replace with loan fan during repair. All this for \$4.75 per fan up to 16", 17" fans and larger including pedestals — \$7.50 each.

NOTE: MAJOR REPAIRS on fans are NOT made without your authorization and FIRST quoting you the price.

We sell and service all types of electric fans and Air Conditioners. Our Customer list reads like a *Who's Who* of Chicago's leading companies and industries.

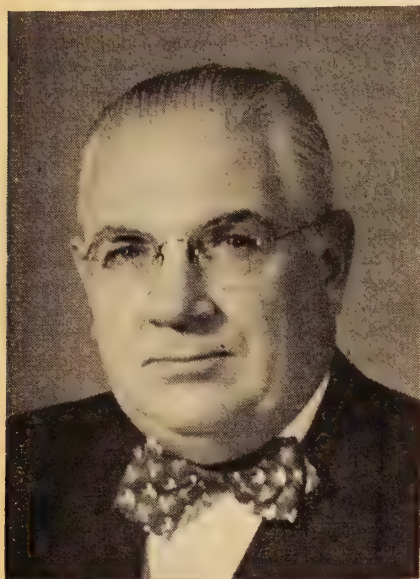
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Clayton F. Devine,
Traffic Director, Silica Sand
Traffic Association of Illinois.
President,
The Traffic Club of Chicago.

Without silica sand, a sizeable part of U. S. industry would soon become idle. The giant glass industry would be unable to make such products as containers, electric light bulbs and automobile windshields. Manufacturers of enamelware, paints, steel castings, and silicate of soda, among many others, would be crippled.

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★ ★ ★

"The Wabash Railroad has done a better-than-excellent job for us for many years," says Mr. Devine. "In emergencies—for example, when we've needed extra covered hopper cars—the Wabash invariably comes through. It's great to work with people who really know how to meet your transportation needs."

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P. A. SPIEGELBERG,
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 **WABASH RAILROAD**

are not usually themselves students or readers. It is perhaps unrealistic to expect them to be. There is a necessary division of labor in society, and most businessmen have enough to do in improving their particular product to satisfy consumers, in reducing costs, and in meeting competition. But one result of the preoccupation of business leaders with their own immediate problems is that they hardly become aware of the existence and power of ideas—conservative or radical — until some legislative proposal that would destroy their business is put before Congress, or until the labor union in their own plant makes some ruinous demand. Then they are apt to think that this demand comes from the rank-and-file of the workers, and that it can be answered by some statistics showing the smallness of profits compared with wages.

But usually neither the assumed origin nor the assumed cure is correct. The demands come, not from the working rank-and-file, but from labor leaders following a suggestion thrown out in some college classroom, or by some radical writer and the practical businessman, even though he knows the immediate facts of his own business, finds himself at a heavy

disadvantage in these controversies because he cannot answer, and perhaps is even unaware of, the *general premises* on which the contentions of those hostile to business really rest."

Here is a challenge of the first order. If the business executive going to be articulate and persuasive, he must have help from his own economist and from his business organizations.

There is reason to believe that economists have made sufficient progress in understanding the nature and causes of the business cycle so that the catastrophe of the 1930's need never be repeated. There is also reason to believe that business policies in terms of prices, inventory, depreciation, new product development, advertising, and so forth, can do a great deal to mitigate the extremes of economic fluctuations, but this requires a total view of the company, of the industry, and of the economy. Economic analysis by skilled minds can make a substantial contribution.

Furthermore, such analysis can help to make the businessman an articulate, persuasive spokesman in the national interest. This is a challenge to every businessman today.

Business Planning In the Atomic Era

(Continued from page 14)

economic need for their respective products and services, as the electric light replaced the gas jet. Businessmen must remain alert, however, not to be caught with obsolete plants, processes, or products that place them in an untenable competitive situation.

Now for the second big question: New management problems arising from the utilization of atomic energy. Of course, the first and toughest problem is trying to forecast what is going to take place technically. But there are other problems that are more familiar to businessmen — such matters as plant and public safety, insurance, patents, public relations, shipping and waste disposal, worker education, and doing business with the government.

First, consider safety. When one

proposes the use of radioactivity in industry, the question of safety in the plant and for the general public is immediately raised. The important consideration, however, is that none of the proposed industrial uses of atomic energy contemplates placing radioactive materials in harmful quantities within the reach of the general public. Dangerous quantities must be confined to plants and laboratories where they can be handled under safe conditions by competently trained persons.

We now have several years of AEC experience in the safe handling of tremendous quantities of radioactive materials. The AEC and its contractors have established a wonderful safety record that proves beyond a doubt that radioactive materials can be safely used if ade-

uate precautions are followed. Certainly the use of large quantities of radioactive materials in plants poses no more serious problems than those present in some chemical processes. Safety procedures are available from the AEC, and, at present, the AEC inspects plants using radioisotopes and can withhold isotopes from those not taking proper precautions. Probably this responsibility will eventually be assumed by state and local health officials.

Then there is the matter of insurance. At present, insurance coverage for industries using radioactive materials has been absorbed in the general casualty rate structure for the industry. A committee representing the insurance industry is considering the possible need for special procedures to be used in evaluating insurance risks for liability and property damage resulting from the large-scale use of radiation by industry. This seems to take care of the normal insurance needs of industry. Some companies are concerned, however, about the need for public liability insurance to protect against the catastrophic release of a large source — say, if an explosion spread radioactivity over a wide area with harmful effects upon the inhabitants. So far as is known, no insurance has yet been written by a private company to cover such a calamity.

Patent Position

Next, patents. Under the Atomic Energy Act, inventions and discoveries of a non-military or declassified nature can become public property and available for non-exclusive licensing. This has caused some businessmen to feel that research on matters involving atomic energy is not a good risk, since the competitive advantage of patent protection is not assured. From a practical standpoint, however, the AEC has been reluctant to exert its licensing power under the act except when national security is obviously affected. This reluctance is reflected in this statement from the Fifth Semi-Annual Report of the commission regarding non-military patents resulting from research with radioisotopes, "Inventions made in the course of work . . . (not fi-

nanced by commission funds) on or with radioisotope compounds would be subject to patenting by the inventors in accordance with normal industrial practices and without any patent rights being reserved to the commission."

This policy has been followed since 1948, to the general satisfaction of industry. But regardless of the patent situation, probably the most important advantage to be realized from industrial research on the atom will be know-how.

The protection of know-how pre-

sents another problem, however. Under the Atomic Energy Act the commission apparently has the power to require reports of those doing research work using radioactive materials. In the isotopes program, the AEC originally reserved the right to require publication of any information obtained as a result of research using isotopes. As this program has grown and as private enterprise has entered the field of radioisotope research, this policy has been altered. As it now stands, the Isotopes Division pro-



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protects the know-how of the individual organization doing research using radioisotopes. They require only sufficient information to allow them to carry out their function of protecting public health. In the Isotopes Catalog, the Isotopes Division specifically states, "Reporting requirements will be applied so as not to interfere with an inventor's opportunity to obtain patent protection for his inventions and discoveries."

In practice, the AEC has been doing a commendable job in preserv-

ing industrial confidence. Businessmen should understand, however, that under present law no individual within the AEC can promise them permanent patent protection or immunity from reporting their research findings.

The use of radioactive materials in a plant also presents some novel public relations problems. The publicity given military aspects of atomic energy have the average citizen scared stiff of anything related to radioactivity. However, the

Stanford report makes this comment:

"The problem, then, is one of orientation and education using a positive approach to teach that radioactive materials can be useful, valuable, and safe. Such a plan of attack is already being used successfully by companies handling radioisotopes. In some instances, presentation of such information as the fact that humans and all other forms of life on earth are continuously exposed to natural radiations of some type will be helpful. For example, persons living at high altitudes, in Denver, Colorado, are continuously exposed, without ill effects, to cosmic rays in excess of the amount of radiation received by most workers in AEC production facilities."

Then there is the question of shipping and waste disposal. Radioactive materials, even in very large quantities, are now being shipped about the country by rail, truck and air. The procedures for safe handling are well developed, and present no great problems.

Waste Disposal Problem

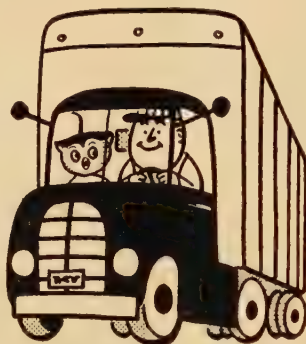
Waste disposal, on the other hand, could present some serious problems to industry. The problem is one of finding a safe means for disposing of radioactive sources that have decayed beyond usefulness, but still emit radiations that could be harmful. At present, the AEC oversees and sometimes assists with the disposal of radioactive materials. Some such cooperative effort seems indicated for the future as a measure of public welfare.

Finally, dealing with the government. The AEC is a rare bird among government agencies. It is a complete monopoly of an entire field of technology, yet its administration has been distinguished by all-out use of private enterprise. The best evidence of this is found in the fact that 90 per cent of the people working on the atomic energy program are not employees of the AEC, but rather of private contractors working for AEC. Furthermore, those who have worked with the AEC as contractors have found the commission's methods exceptionally businesslike and free of red tape.

Probably this is partially due to the fact that the AEC is a relative



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w. agency. Also, the AEC has attracted commissioners and other key employes of unquestioned ability. These men, many of them new to government service, have made a vital contribution to national welfare by keeping the philosophy of private enterprise alive in the huge and vital atomic energy program.

In spite of a climate generally favorable to business, there has been some impatience among businessmen closely associated with the AEC's program for peacetime benefits of atomic energy to be made more quickly and generally available. In fairness to the commission, it must be observed that their first task is to keep the United States supreme in the military applications of atomic energy. Their preoccupation with this task has undoubtedly made it necessary for peacetime possibilities to take a secondary position.

Don't Wait On AEC

Nevertheless, there is plenty of evidence that the commission is interested in the development of peacetime industrial uses for atomic energy. For example, in a recent talk to the American Society of Mechanical Engineers, Commissioner T. Keith Glennan said:

"Don't sit back and wait for things to happen in the atom business. Continue to be impatient about the future and the enlargement of industrial participation on a basis that will allow your companies to earn a return on your efforts commensurate with the risk they will make. And look for opportunities to take that risk. If you do not do this, it is my opinion that you may well be witnessing the first step in the extension of governmental control over our basic industries."

Then there is the recent establishment of an AEC office of Industrial Development. Dr. W. L. Davidson, its director, says that his office will concentrate on problems of interest to businessmen. His office will take no part in dealing with AEC contractors, but rather will direct its effort to assisting industry in developing the industrial possibilities of what Dr. Glennan calls "atom business." If any businessman wants to talk to somebody at the commission about the inter-

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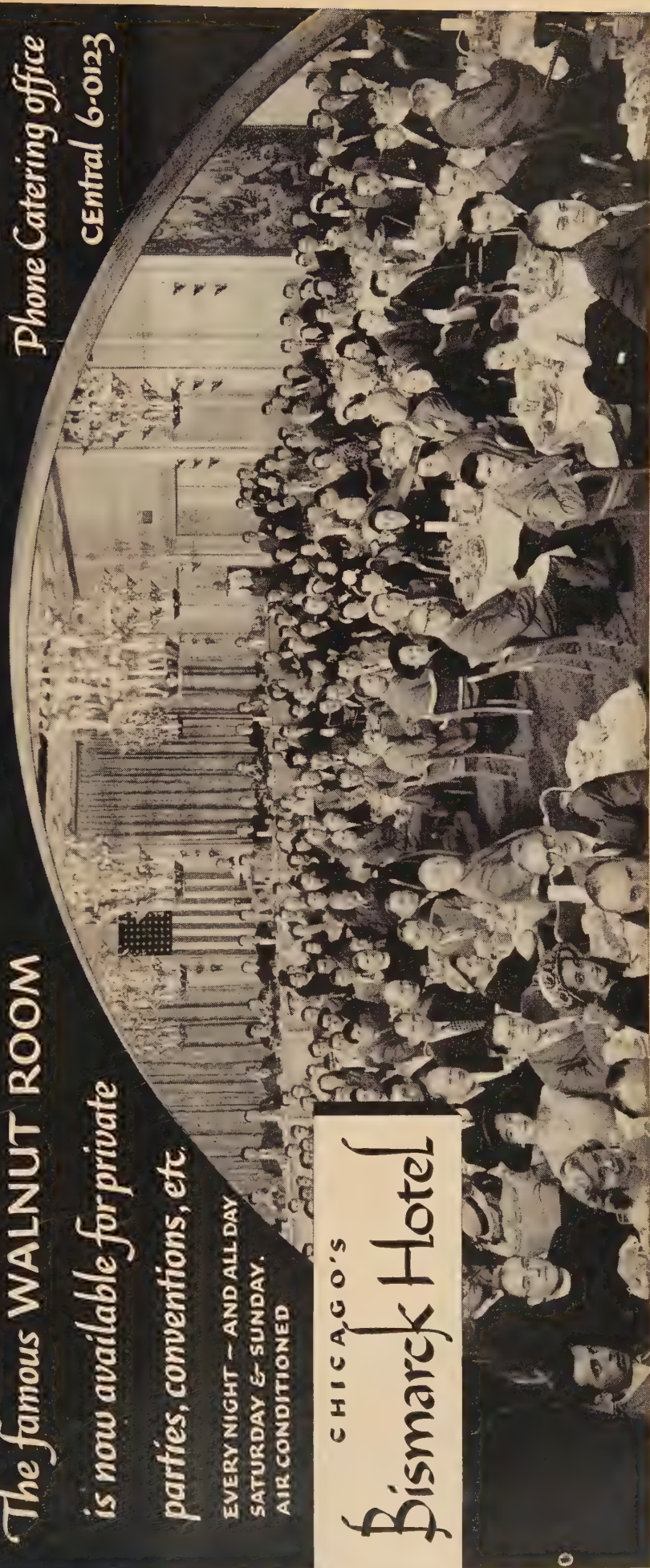
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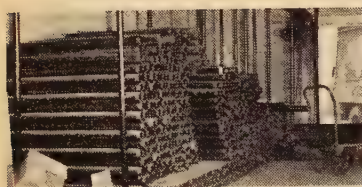
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est of his company in atomic energy, the Office of Industrial Development is the place to start.

Whether we like it or not, the atomic age is here to stay. We will come a choice selection of new and difficult problems to challenge business management. It is a safe assumption that several hundred business organizations are now carrying on research programs involving some phase of atomic energy. When we see this activity we remember that the atomic energy program is not yet 10 years old; we can only include that the most important business event of our time may well prove to be the splitting of the atom!

The foregoing has been digested from a speech delivered by the author on September 11, 1952, before the Seventh National Chemical Exposition in Chicago.

Trends In Finance and Business

(Continued from page 11)

even a bit more praesodymium, the years ahead—particularly if you are in the steel, aviation or electronics industries. This forecast comes from Dr. Clyde Williams of Battelle Institute who believes there are sizeable new markets for these and other "rare earths" may develop as the result of recent discoveries of large domestic resources of these tongue-twisting raw materials in several western states.

In addition to the aforementioned, there are 12 other "rare earths"—cerium, promethium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, and lutetium. Although now used in such isolated applications as cigarette lighter "sparking" flints and super-bright illuminators for movie projectors and searchlights, the rare earths, according to Dr. Williams, have been in limited availability because it has been difficult to separate them into pure form.

Dr. Williams points out that in steel making, for example, the addition of certain "rare earths" improves the resistance of the primary metal to oxidation and corrosion at high temperature, increases strength and reduces impurities. Another new source of these raw materials is the atomic energy pile from which they emerge as by-product

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Invest in the Middle West

Reviews of Middle-Western Companies

by D. F. NICHOLSON

THE rise of International Minerals and Chemical Corporation in the last decade to its present position as one of the nation's fastest-growing and most progressive industrial firms is undoubtedly one of the outstanding demonstrations of the role played by management in determining the success of an enterprise.

In 1939, Louis Ware, a mining engineer and executive, was named president of the company. The company's past earnings record was poor. Sixteen cents a share had been earned in 1937, a year of good business activity generally, and less than one-half cent a share in 1938. The only dividend paid on the company's preferred stock since 1931 was \$3 a share in June, 1937, and huge arrearages had accumulated. No dividend payments had been made on the common stock since the company was recapitalized in 1923.

Recapitalized in 1942

In April, 1942, the company was recapitalized again to eliminate accrued dividends of \$93 a share on the seven per cent preferred stock and pave the way for payments on both the new preferred and the common. In the ten years that followed, International Minerals and Chemical paid dividends each year on both classes of stock, in aggregate amounts of \$3,933,200 on the preferred stock and \$14,103,413 on the common. In addition, \$24,763,760 in earnings was retained in the business to finance the continued growth of the company.

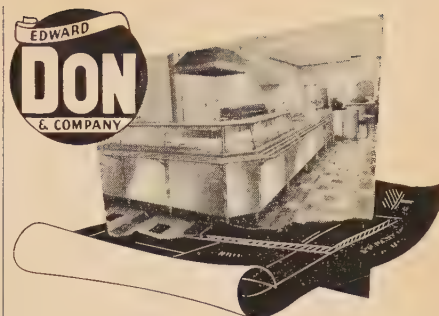
Research and diversification have featured International Minerals and Chemical Corporation's progress under the present management. Although the company is a major producer of two of the three prin-

cipal fertilizers, phosphate and potash, and the demand for fertilizer is expected to expand steadily for an indefinite period to enable the nation's farmers to meet the food and fiber needs of a growing population, International Minerals has not abated either its research activities or its diversification efforts. Instead, it has intensified them, and at the same time facilities for producing fertilizer are being greatly expanded.

Formed in 1909

The company was formed in 1909 as the International Agricultural Corporation to mine phosphate rock and produce mixed plant foods. Today International Minerals is the largest phosphate miner in the Western Hemisphere and is third in the domestic production of potash. The first venture outside the field of minerals or plant food came in 1942 with the purchase of the Amino Products Company of Rossford, Ohio. It is operated as the Amino Products Division. This division manufactures monosodium glutamate, which has become a widely used flavor-accentuator in processed foods and is also sold for home kitchen use as a companion to pepper and salt. More than 700 food processors now use glutamate, sold primarily under the trade name "Ac'cent," which the company produces in plants at San Jose, Calif., and Toledo, Ohio. The San Jose plant is now being expanded. The Amino division is also developing pharmaceutical products, including two materials that have shown promise in the treatment of heart and other degenerative diseases.

In 1951 two additional acquisitions were made that contributed to International's diversification. One was Innis, Speiden and Co., with



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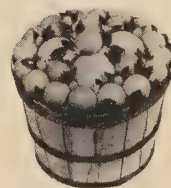
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plants at Niagara Falls and Jersey City, a manufacturer of chemicals and chlorine products and industrial waxes and gums. The other company acquired was Eastern Clay Products, Inc., engaged in mining, refining, processing and selling foundry bonding clays and refractory compositions, and bentonite, used in the drilling of oil wells in certain foundry and molding processes. Both companies were acquired through an exchange of stock.

Diversification Drive

Thus International has added industrial minerals, a broader line of chemicals derived from potash, and the promising Amino products with their pharmaceutical possibilities, to its basic line of agricultural fertilizers.

Research at International Minerals and Chemical Corporation has involved the development of new products and improved production and materials handling methods, and has been greatly expanded in the last decade. A new general research laboratory was recently

completed at Skokie, Ill., and further research is carried on at Mulberry, Fla., and Woodland, Calif. A part of the company's research is being done under contract with the Atomic Energy Commission, and International has under construction at Bonnie, Fla., a plant that will produce uranium as a by-product.

Extensive phosphate mining properties are owned in Florida, Tennessee, and in the northern Rocky Mountain area, while at Carlsbad, N. M., large reserves of potash ores are owned. The company has 34 manufacturing plants, eight chemical plants, and 11 mines. Expenditures on construction aggregated \$10,059,531 in the 12 months ended June 30, 1952, and there are current commitments for additional construction totaling approximately \$12 million.

Sales climbed 28 per cent in the 1951-52 fiscal year to a record high at \$84,570,447, as compared with \$66,257,884 the preceding year, continuing a record of uninterrupted gains for more than 10 years. Tonnage records were established in the production and shipment of phos-

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phate from Florida and Tennessee. The demand for potash for agricultural purposes required not only capacity operation by International and the entire industry, but also the importation of several hundred thousand tons of potash salts. The company's entire potash production for the year to end June 30, 1953, has already been sold.

Peak Earnings

Earnings for the 1951-52 fiscal year were at a new peak, but only slightly above the previous year's figure. Net income was reported at \$6,653,251, equal to \$2.90 a share on 2,161,511 common shares after allowing for preferred dividends. This compared with net of \$6,514,130, or \$3.06 a share on 2,000,000 shares, earned the year before. The annual report for the 1952 fiscal year explained that operating margins were narrowed by increases in costs without compensating advances in product prices, by the need for obtaining some materials from other than normal sources, and by the unavailability of some materials in required quantities so that other materials had to be substituted at higher costs.

Following is a comparison of net sales, net income, and earnings per share of common, for the fiscal years 1942 to 1952, inclusive:

Years ended			*Per Sh.
June 30	Net Sales	Net Earnings	Com.
1952	\$84,570,447	\$6,653,251	\$2.90
1951	66,257,884	6,514,130	3.06
1950	58,402,180	5,776,660	6.80
1949	53,294,760	5,421,017	6.36
1948	50,123,269	5,016,028	5.85
1947	41,302,250	3,826,992	4.35
1946	34,373,106	2,925,657	3.92
1945	30,301,091	2,038,169	2.76
1944	27,348,667	2,016,037	3.11
1943	22,477,375	2,081,738	3.61
1942	18,122,891	1,660,404	2.71

*After preferred dividend requirements, and based on following common shares: 1952, 2,161,511; 1951, 2,000,000; 1950, 791,870; 1949, 790,305; 1948, 789,780; 1947, 788,155; 1946, 646,346; 1945, 594,466; 1944, 521,623; 1943, 467,374; 1942, 467,279.

Capitalization as of June 30, 1952, consisted of a term loan of \$11,350,000 maturing serially until 1964, \$625,000 of notes payable, 98,330 outstanding shares of \$100 par value cumulative preferred stock, and 2,161,511 shares of \$5 par value common. In July, 1952, the company issued 40,834 shares of common in exchange for all outstanding stock of the Hoover and Mason

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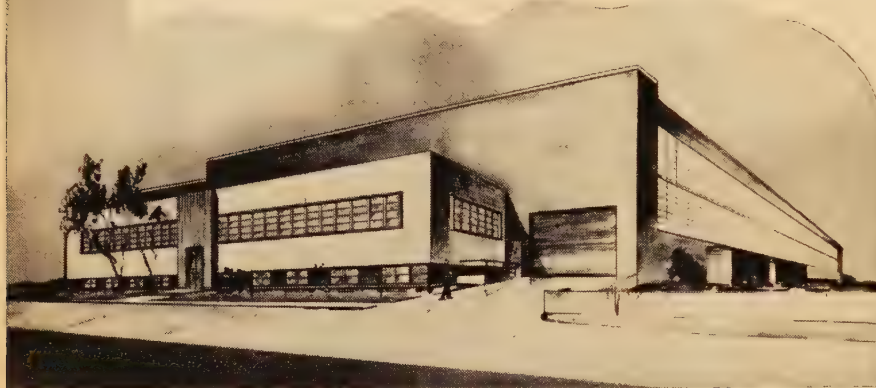
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Initial dividends were paid on the preferred and common stocks in 1942 and have been continued in each succeeding year. Payments on the common, adjusted to reflect the distribution of a 100 per cent dividend in stock in December, 1950, were as follows for fiscal years: 1951 and 1952, \$1.60 a share; 1950, \$1.10; 1949, 95 cents; 1948, 80 cents; 1947, 65 cents; and 1943 to 1946, inclusive, 50 cents. A regular quarterly dividend of 40 cents a share was paid September 30, 1952.

Total assets of International Minerals and Chemical Corporation amounted to \$86,195,953 on June 30, 1952, against \$76,279,771 a year earlier. Fixed assets totaled \$51,737,405 after deducting depreciation and depletion reserves. Current assets of \$33,044,730 compared with current liabilities of \$5,165,636. Cash alone totaled \$11,142,263, and receivables amounted to \$7,048,738. The common stock equity per share was approximately \$27.40.

Here, There and Everywhere

(Continued from page 8)

the job. In most cases, no prospects are ever brought to see his 'model' home and no commissions are paid to him."

• **TB X-ray Program Grows**—Over 293,000 Chicagoland residents were screened for tuberculosis during the first six months of 1952 in units operated by the Municipal Tuberculosis Sanitarium and the Tuberculosis Institute — the Christmas seal organization. This figure represents about 47,000 more than were X-rayed during the same period last year. The number X-rayed free of charge under this program in 1951 totaled 526,431 — an average of more than one X-ray for every minute of the year. It resulted in the discovery of 8,935 suspect cases of TB. Beginning in November, the X-ray program will be carried out in industry with mobile equipment moving from plant to plant.



Industrial Developments

... in the Chicago Area

INVESTMENTS in industrial plants in the Chicago area totalled \$22,979,000 in September compared with \$14,889,000 in September, 1951. Total investments for the first nine months of this year were \$167,253,000 compared with \$266,378,000 in the same period in 1951. These figures include expenditures for the construction of new industrial plants, expansion of existing buildings, and the acquisition of land or buildings for industrial purposes.

• **Standard Oil Company of Indiana** has applied for a certificate of necessity for the construction of a fluid hydroformer unit at its Whitening refinery. The company has started construction of a products pipeline to the Detroit area with a daily capacity of 49,000 barrels.

• **Abbott Laboratories**, North Chicago, is building a one-story structure on the tract of land recently purchased at Skokie and Buckley Roads. The building, which will contain 300,000 square feet of floor area, will be used as a warehouse. Naess and Murphy, architects; Carroll Construction Company, general contractor.

• **H. M. Harper Company** has been given a certificate of necessity for an expansion of its plant for the output of precision fasteners.

• **Nottingham Steel Company**, 5921 S. Western avenue, has applied for a certificate of necessity for a steel warehouse building at 18th street and Aberdeen avenue.

• **Royal-Continental Box Company**, 2214 W. Fulton street, has purchased approximately four acres of land at 13th street and 47th avenue, Cicero. The company will construct a 75,000 square foot building

on the site. The company makes corrugated and wooden boxes.

• **Standard Steel Spring Company** is constructing a factory building at its present location in Gary. Abell-Howe Company, general contractor.

• **The Wall Street Journal**, 12 E. Grand avenue, has purchased the three-story and basement building at 711 W. Monroe street to which it will move its Chicago facilities. This plant will be used to publish the midwest edition of the Journal and will be midwest headquarters of Dow Jones and Company, publishers.

• **Standard Coil Products Company**, 2329 N. Pulaski road, is expanding its Melrose Park plant by the addition of 75,000 square feet of floor area with the addition of a one and two-story structure. J. Emil Anderson, general contractor.

• **Walworth Company**, 319 W. 40th place, manufacturer of valves, fittings and other plumbing supplies, is building a warehouse at 3100 S. Kilbourn avenue. The building will contain 55,000 square feet of floor area. Campbell-Lowrie-Lautermilch, general contractor.

• **Chicago Molded Products Corporation**, 1020 N. Kolmar avenue, has purchased approximately 52,000 square feet of land at 2713 N. Normandy avenue on which it will build a branch factory. The company manufactures plastic items. J. H. Van Vlissingen and Company, broker; J. Emil Anderson and Company, general contractor.

• **Central Solvents and Chemical Company**, 2545 W. Congress street, is erecting a plant at the northwest

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corner of Flournoy and Maplewood streets. The company makes chemicals used by the paint, varnish and lacquer industries.

• **Streamlight Trailer Company**, has purchased the building at 319 W. 40th place in the Central Manufacturing District. L. J. Sheridan Company, broker.

• **Underwriters Laboratories, Inc.**, 207 E. Ohio street, has purchased a tract of land which was formerly owned by the Illinois Brick Company at Dundee road and Pfingsten road northwest of Northbrook. A few buildings on the property will be used temporarily by Underwriters for research purposes, but a new plant will not be built for several years.

• **Budd Company**, Gary, is making an addition to its plant containing 27,000 square feet of floor area.

• **Skolnick Drum and Barrel Company**, 1102 S. Fairfield avenue, is constructing a one-story brick building containing 16,000 square feet of floor area at 49th street and Knox avenue. Fridstein Engineering Company, engineer.

• **Do-Ray Lamp Company**, 1458 S. Michigan avenue, is constructing a warehouse at 1468 S. Michigan avenue. The two-story structure will contain 17,000 square feet of floor area.

• **Riley Printing Company**, 732 W. Van Buren street, has purchased the building at 701 S. Halsted street. The plant contains 20,000 square feet of floor area. Bennett and Kahnweiler, brokers.

• **Glidden Company, Soya Products Division**, 1825 N. Laramie avenue, is expanding its Lecithin building. Lecithin is a soybean product used in the baking and candy industries.

• **Mayfair Molded Products**, 465 N. Elston avenue, manufacturer of rubber grommets and molded plastics, is constructing a plant in Leyden Township near Franklin Park.

• **Brunols Wood Craft**, 7001 N. Milwaukee avenue, Niles, is building a factory at 8016 Ridgeway ave-

nue, Skokie. The plant will contain approximately 10,000 square feet of floor area.

• **Linde Air Products Company** is expanding its East-Chicago plant by approximately 11,000 square feet.

• **Tenak Products Company**, 2615 N. Paulina street, has acquired land at 1750 W. Wrightwood avenue for future development. The company makes electrotypers' supplies.

• **Pepperidge Farms, Inc.**, 111 East 13th street, has begun construction of a baking plant in Downers Grove. The building will contain 50,000 square feet of floor space.

Holiday For Cupid

(Continued from page 15)

million fewer of these young men and women.

Our survey further indicated that many businessmen still believe there is a serious shortage of housing, and that vast numbers of newly-weds live with in-laws and are seeking their own dwellings. Even if marriages decline and the number of households diminish, these executives feel there are still large numbers of young couples avidly searching for their own housing.

True, there was a postwar boom in marriages and many of these couples were delayed in getting into their own home or apartment. But are many couples still seeking their own housing?

Looking backward, it is clear that the record number of marriages in 1946 — a total of 2,300,000 — did put tremendous pressure on housing. By 1947, a record 8.6 per cent of our married couples were living with in-laws or friends — a considerably larger percentage than is normal, as the census figures indicate:

	% of married couples without own household
1930	6.1
1940	6.8
1947	8.6

But by 1950, the census found that only 5.6 per cent of married couples were still without their own households — a record low! The couples kissed their in-laws goodbye in 1948 through 1950, and set up for themselves. This seems further



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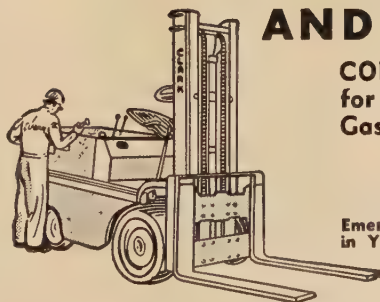
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proof that we will see less new households being established in the next decade. Whereas the net increase in new households was about 450,000 annually during the last decade, indications are that no more than 100,000 to 200,000 new households will be added annually for the next eight to ten years.

Diversification Needed

Thus it appears obvious that if producers of housing, home furnishings and electrical appliances want to maintain their dollar volume, they must diversify in order to take in fields other than their particular specialty. Building material producers will have to emphasize repair and remodeling. Producers of household furniture must cast about for other items which do not go into the home. Manufacturers of electrical appliances have two choices: household items which are far from saturation, and industrial products.

On the bright side there is the fact that there is no scarcity of purchasing power. Here, for example, is the way consumer savings have risen:

	Savings
1949	\$ 6.3 billion
1950	10.7 billion
1951	17.2 billion
1952 (annual rate)	17.5 billion

Business spending for capital construction and equipment is also at record levels. The latest estimates of the Commerce Department and the Securities and Exchange Commission not only indicate that total capital expenditures will top 1951 but that the capital boom will have a broad base, extending through practically all industry. All of which means that those manufacturers who have specialized in home equipment, now have an opportunity to diversify their lines for the industrial market.

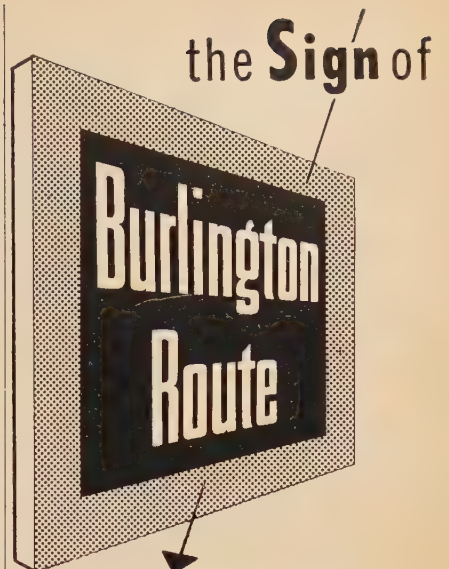
This adjustment on the part of all building materials manufacturers, on the part of the household goods and household electrical appliance producers, does not have to be made overnight, since the anticipated contraction will not be that rapid. But the necessity of the adjustment appears in the cards, and requires careful long-range planning to meet the problem adequately.

Transportation and Traffic

THE Chicago hearing in I. & S. No. 6013, Pick-up and Delivery charges in Official Territory, concluded September 11. During the four day session approximately 40 shippers testified in opposition to the proposal of the eastern railroads to cancel free pick-up and delivery service in Official Territory. Under suspended tariff, filed to become effective June 23, 1952, the railroads attempted to apply additional charges ranging from 10 cents to 35 cents per 100 pounds for pick-up and delivery service performed in Official Territory. The 35 cent charge would be applicable at Chicago. Testifying on behalf of the Chicago Association of Commerce and Industry, traffic director A. H. Schwietert said: "It has long been the established policy of our Association that rates and charges assessed by transportation agencies must be sufficient to permit the agencies to furnish adequate and efficient transportation service and that each class of traffic must pay its own way. It is our view that under a competitive transportation system, such as that which exists today, adequate compensation from each class of traffic is necessary in order to provide that class of traffic with the kind of service needed by the shipping public. This policy should not, however, be interpreted as meaning that each class of traffic must contribute exactly the same amount toward overhead or profit. It may frequently be necessary for some classes of traffic to pay less than their full share of the amount needed above the out-of-pocket cost of performing the service. If such an adjustment is necessary in order that traffic may move freely then, in our opinion, it should be made so that revenue therefrom will make the greatest contribution to the maintenance of an adequate and

efficient transportation system." Mr. Schwietert continued: "It is our view that the proposal of the respondents in this proceeding to assess additional charges for pick-up or delivery services, which vary as between different communities served by the carriers and which permit an alternative use of station-to-station rates, is not in the best interest of the shippers or the carriers. It is also our view that the proposal will result in a further diversion of traffic, in increased costs to the carriers and in unreasonable and discriminatory charges to the shippers." The final hearing in the proceeding is set for October 14 in Washington D. C.

• **Examiner Finds Distribution Rates At Chicago Lawful:** In his recommended report and order in Docket MC-C-1191, Local Cartage National Conference v. Middlewest Motor Freight Bureau, Inc., et al., Interstate Commerce Commission Examiner Stephen A. Aplin finds that motor common carrier rates applicable in connection with distribution service at Chicago and St. Louis are not unlawful in violation of Section 216 of the Interstate Commerce Act. He further finds that the evidence fails to establish that the rates, rules, charges and regulations of the carriers are such as to prevent them from fulfilling their obligation to provide safe and adequate service, equipment and facilities or that their practices impair safe, adequate, economical and efficient service. The proceeding grows out of a complaint filed in September, 1950, by the Local Cartage National Conference, charging that rates of motor carriers for distribution service at Chicago and St. Louis, applicable in connection with line-haul transportation by the same carriers, were not compensatory and



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created unfair and destructive competitive practices, and that the local cartage carriers were unable to meet competition of that nature. The Chicago Association of Commerce and Industry intervened in the case in support of the defendants.

• **C.A.B. Authorizes Continuance** of Directional Air Freight Rates: The Civil Aeronautics Board, in its findings in Docket No. 1705, authorized indefinite continuance of experimental directional air freight rates which are lower than the minimum rates previously prescribed. In its report of April 1, 1950, the C.A.B. found that "a much greater amount of freight was carried from east to west and from north to south than in the opposite directions" and that this "unbalanced movement of freight resulted in a substantial amount of unused freight space on return flights from the west coast to the east coast and from south to north." This backhaul problem, the board found, was a critical factor limiting the growth of air freight.

• **Midwest and Transcontinental Motor Rate Hikes Suspended:** The Interstate Commerce Commission has suspended proposed increases in motor carrier rates into Middlewestern and Transcontinental territories. Under I. & S. M-4414, Middlewestern Commodity Rates, the commission blocked a proposed general increase in commodity rates published in tariffs of the Middlewestern Motor Freight Bureau. In its order in I. & S. M-4416, Transcontinental and Western Increases — 1952, the commission suspended an increase of approximately nine per cent in class and commodity rates published in tariffs of the Rocky Mountain Motor Tariff Bureau, Inc.

Industrial TV

(Continued from page 22)

ently using television for production or assembly line control, the field offers great opportunities. In watching feed lines and assembly conveyors, television would permit a dispatcher to spot impending production delays before they occur and take preventive action. By watching any number of remote production points, a dispatcher could detect shortages before the

became serious, straighten out piles while they are still small, and direct misdirected materials quickly. This use of television, by enabling the production manager to study assembly line pace and methods from a distance, could also contribute to improved production methods.

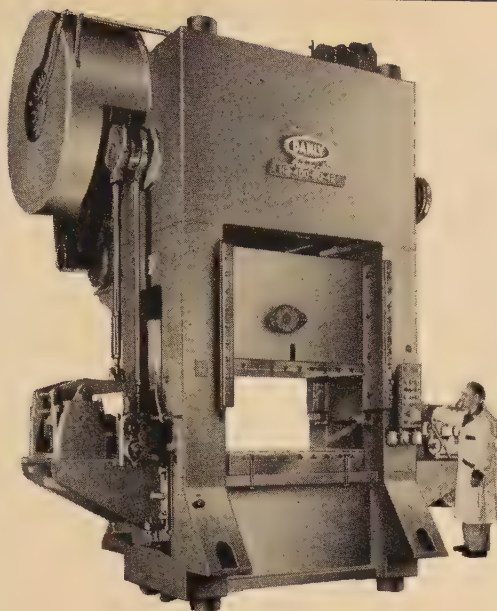
RCA Victor recently attracted considerable attention with a series of tests at the Barr Yard of the Baltimore and Ohio Railroad, near Blue Island, Ill., to determine the feasibility of TV in railroad operations. The company conducted tests designed to determine the feasibility of using television to inspect freight car running gear, to read car numbers from inbound freight cars, and to oversee general yard operations from a yard tower.

Although the tests were preliminary and more thorough tests are yet to be conducted, they indicate that use of television in connection with certain railroad operating problems is practical. One railroad, the New Haven, already reportedly plans to install cameras at 14 stations along its tracks to watch for hotboxes.

Place in Mining

Industrial TV may even have a place in mining. RCA Victor has experimented with an installation in one of the huge drag-lines of the Hanna Coal Company. In strip mining it is important that the shovel or bucket of the drag line take its full 50-cubic-yard capacity with every bite. The television installation, with a camera on the boom and a monitor in the cab of the drag line, enables the operator to know when his shovel is filled to capacity, something which he ordinarily cannot determine himself because of the huge size of his equipment.

These are but a few of the many uses to which television has been put or may be put in commerce and industry. Industrial television offers "unfathomed potential" in business and industry, in the words of the industrial television manufacturers, who believe that science and industry can find many uses for a device which can transmit an instantaneous picture, in black or white or color, of nearly anything over nearly any distance.



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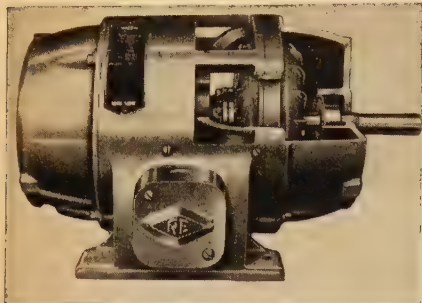
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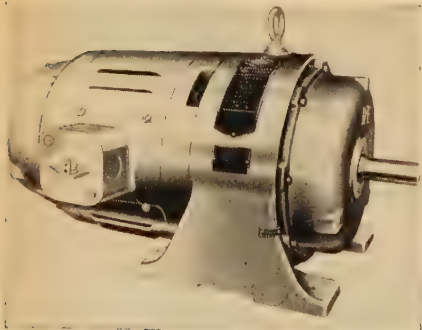
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Automatic Gas Cut-Off

In the gas supply line of the average home there is a cut-off valve just in front of the meter, but in the event of fire and a melted meter that valve, of course, stays open. As a precaution against this hazard, the Kelly Safety Device Company of Cleveland has come up with a new gas cut-off valve containing a fusible plastic link that distorts at about 165° F., in turn forcing a tension spring to close the valve and thus prevent the discharge of gas from a melted gas meter. The automatic valve requires about 2½ minutes to close after its heat limit has been reached.

New Diesel Engine

Caterpillar Tractor Company, Peoria 8, Ill., has introduced a new high-speed Diesel engine in three models for industrial, electric and marine applications. The basic engine has six cylinders, a 5½-inch bore and 6-inch stroke. Pumps are mounted directly adjacent to the cylinders they serve, and thus fuel lines are short. Pumps, as well as intake and exhaust valves, are actuated by a single camshaft.

Airplane Tires

The first tubeless tires for aircraft use have been developed by the B. F. Goodrich Company, Akron. The new tires are said to assure safer high-speed take-offs and landings, reduce overall weight of an aircraft, simplify assembly, and provide more uniform inflation pressure.

Portable Controller

Taco West Corporation, 525 N. Noble Street, Chicago 22, has introduced a portable temperature controller designed for intermittent use at different locations in a plant. The instrument is plugged into any wall outlet; then by simply inserting the controller's thermocouple into an oven, bath, thermocouple

well, etc., the temperature is shown by one pointer and may be controlled at any desired point by setting a second pointer. Two power outlets enable the instrument to control blowers, fans and agitators, as well as temperature.

Versatile Metal Tool

A small bench-top tool that punches, shears, forms and rives metal parts has been placed on the market by Albert J. Tatu Company, Williamsville 21, N.Y. Designed especially for hobbyists, craftsmen and repair shops, the in-1 tool sells from under \$10.

New Sump Pump

A submersible sump pump for home use which is said to provide complete protection against flash floods or backed up sewers has been developed by Fairbanks, Morse and Company, 600 S. Michigan Ave., Chicago. The chief feature of this new pump, in addition to its automatic operation, is the elimination of exposed floats and rod above flood levels. Furthermore, the motor can be completely immersed in water with no effect on its operation.

Anchoring Improvements

New pipe bolt and eye bolt anchoring assemblies said to provide 50 per cent greater anchorage for pipes and guy wires attached to masonry have been introduced by the Super-Grip Anchor Bolt Company, Inc., Philadelphia 40, Pa. The assemblies consist of the pipe or eye bolt, lead sleeve, and a cup-shaped steel anchor. After being inserted in masonry, the lead sleeve as well as the steel anchor are mushroomed into the walls of the hole with a special tamping tool. Thereafter the steel anchor reinforces the lead sleeve for permanent anchorage.

Handy Magnet

A powerful, little magnet that looks like an ordinary fountain pen

has been placed on the market by General Scientific Equipment Company, Philadelphia 32, Pa. An end job on the pen-like magnet controls the extension of the tip as well as the strength of the magnet. The company believes the new product will be especially useful in moving steel or iron particles from delicate mechanisms, from hard-to-reach places, and even — in winter form — from one's skin.

Lightweight Aggregate

A new construction material, trade-named "Kanamite", has been developed after a four-year research effort at Armour Research Foundation, sponsored by the Kanium Corporation, 332 S. Michigan Ave., Chicago. The material consists of tiny glass balloons, about the size of sand grains, which are made by blowing up in individual grains of clay in a special furnace. Concrete mixes using the new material in place of sand or other aggregates are said to be very fluid, though water content is low. Furthermore, such mixes can be pumped through rubber hoses, thereby saving construction costs. The material is said to be exceptionally strong so that inner coatings of "balloon" plaster can be applied on walls.

Memo on Marketing

(Continued from page 19)

preserving itself through successive generations of customer-accepted merchandise.

Product line diversification has our basic objectives: (1) to achieve more efficient marketing by increasing sales, reducing costs and satisfying the demands of both the distribution channels and the ultimate customer; (2) to promote stability of earnings by eliminating seasonal and cyclical slumps and hedging against a declining demand for present products; (3) to utilize fully company's capacity, its research discoveries and its manpower and to take full advantage of investment opportunities.

7. Customer Product Requirements. Consumers' tastes for clothing, furniture, amusements, and the like are constantly changing. Requirements of industrial buyers change from week to week. The



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CORRUGATED FIBRE BOXES
BEVERAGE CASES
STARCH TRAYS . . . PALLETS

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NN-B-621b	Wood Domestic
NN-B-631c	Wirebound Domestic
NN-B-601b	Cleated Plywood - Domestic
JAN-P-105A	Cleated Plywood - Export
LLL-B-631c	Fibre Corrugated - Domestic
NN-B-591a	Fiberboard, Wood, Cleated
MIL-B-2427	Wood Ammunition Boxes
JAN-P-132	Wood Crates - Unsheathed
MIL-C-11133	Wirebound Crates - Domestic (QMC)

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or sell management
executives in the
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problem is to anticipate or, at least, keep abreast of consumer product reference trends. Alert manufacturers can plot such trends and in many cases predict with amazing accuracy the future desires of their customers. Your future sales will be determined, in large measure, by the trend of your customer's requirements today. Do you know enough about these needs to keep your product line up to date?

8. New Product Possibilities. A brand new product should have these features: it can be sold through your present selling organization; it will use your present machinery, equipment, and technical skills; and its promotion will be within your financial limitations.

But there are other considerations, as well. A proprietary drug manufacturer, for example, developed a startling new denture cleanser in his well equipped laboratory. At first, it appeared perfect for the company, but before appropriating development money the management wisely ordered a thorough investigation. It then developed that the total possible market for the new item was actually so small that the profits so limited that it was not worth the investment in time or money!

9. Package Suitability. Your package must provide maximum utility, visibility and impressionability to give your product a competitive advantage. You will want to pre-test new package designs with new devices that have been developed to find out how customers really react to a package. These tests will determine how they measure up on the three basic criteria before investing in plates, printing or packing machinery. Check-lists are available, incidentally, against which you can judge new package designs. They enable you to give direction to your package designer without inhibiting his creative ability.

10. Product Names and Symbols. Hundreds of excellent products are struggling under the handicap of a brand name that is difficult to read, impossible to pronounce or which suggests an entirely different type of product. Yet, companies go on spending money promoting a weak name that will never achieve maximum brand identification. Suitable brand names for almost

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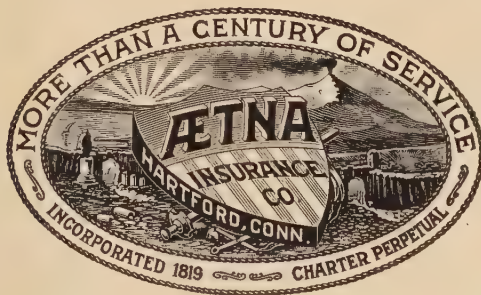
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CHICAGO 47, ILLINOIS

1819

1952



FRED J. SAUTER

Manager

COOK COUNTY DEPARTMENT

175 WEST JACKSON BOULEVARD

CHICAGO 4, ILLINOIS

Phone WAbash 2-6340

any product can be uncovered through relatively simple brand name tests and experiments. The boom in self-service stores has greatly increased the importance of brand names. A distinctive, yet simple, brand symbol can increase package visibility and brand identification and also tie advertising and promotion to the all important "point of purchase."

11. New Product Introduction. The marketing strategy used to introduce a new product into a test market may determine its success

for years to come. A regional canned meat producer desiring to open up several new market areas investigated them and found certain use and buying habits for consumers of this type of product. As a result the canned meat product was sold with a box of macaroni, a deal that proved very successful because it induced many families to sample the combination offer.

Before entering a new market, it is wise to experiment with different types of sales outlets, display material, salesmessages and advertising

media. What may be highly successful in one market is often "dud" in another.

12. Pricing Policies. The establishment of pricing policies is a top management function. Decisions should be reached only after careful consideration of all the factors including factory production costs, sales costs, profit margins, competitive prices, standard trade discount price maintenance practices and credit terms. Are your pricing policies kept up to date to meet the changing requirements of today's business conditions?

13. Service Policies. A sound service policy is a highly valuable asset for it can insure future sales. In many industries, a well organized service operation is a revenue producing department. In many companies overlook the service opportunities in their haste to capitalize on new sales. It is essential to secure an unbiased appraisal of your service operation and an analysis of its future potentials. You must want to know where service efforts must be maintained to produce maximum marketing advantage in each sales territory, and how much "free service" must be offered to be competitive. You will want to know if your warranty policy has the acceptance of your customers and, if not, what should be done to improve it. Take advantage of the information your warranty card can provide to check your consumer sales trends to find out who is buying your product and what sales or models move best.

14. Sales Forecasting. Reliable sales forecasting is the key to successful marketing. It sets the planning for salesmen's salaries, bonuses, sales promotion, advertising out-of-plant production schedules, and total financial requirements. There is no crystal ball for predicting future sales. However, given necessary facts, it is usually possible to produce an estimate that will be reasonably accurate and adequate guide for company operations. If you do not now have a satisfactory sales forecasting procedure, you should take immediate steps to establish one.

15. Sales Quotas. Yearly sales goals, as well as individual and district sales quotas, should be based on forecasted sales opportunities. If you are not giving your sales

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otas to "shoot at," you are ignoring a proved sales stimulator.

16. Sales Territory Design. A salesman's efficiency is greatly influenced by the characteristics of his sales territory, but too often territories are created by simply drawing lines along political boundaries. Unfortunately, markets for products do not follow political patterns. For example, if one man normally covers the Chicago market he probably will want to assign in the Gary and Hammond areas in Indiana.

17. Sales Operating Cost Reduction. A thorough analysis should be made of all the elements contributing to sales costs. A control system should be set up so that each element will come up for review at periodic intervals. Only by constant inspection can you hope to keep your sales costs at a minimum. A soap manufacturer, who follows this practice, is constantly finding new ways to cut distribution costs.

18. Sales Channels. Are you satisfied that your products are being sold through the right kinds of distribution channels? Perhaps you could be selling directly to dealers or even directly to consumers. After a recent investigation, a kitchen range manufacturer found that his practice of selling to dealers in one area and through wholesalers in other areas was causing nothing but trouble — he could not be fish and fowl at the same time. Hence, it is important to determine whether you are utilizing the best channels for your product.

19. Personal Selling Methods. An analysis of the personal selling methods of one organization disclosed that the most successful salesmen used certain sales appeals; the most seldom used these appeals. An unbiased survey of your salesmen's operations might answer many questions that have been in your mind for years. If such a survey increases sales just five or ten percent you have made an important step forward.

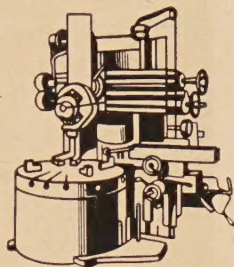
20. Sales Aids and Materials. Often the tools that are given salesmen are created by men who have never sold or who have been sitting behind a desk for 20 years. They may be a long way from satisfying the real needs of the man who must make the contacts. A few dollars spent in experimenting with new

WE BUY & SELL

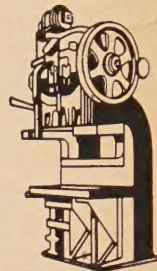
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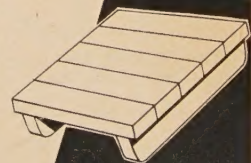
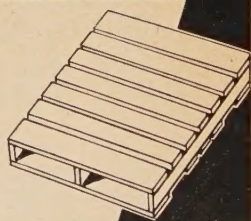
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sales tools under actual sales conditions can pay big dividends.

21. Sales Training Program
Every business organization should have a sales training program. In a small company the program might well be very informal. Larger companies will want to establish definite sales training policies, formal programs and may even require a sales training director. In other words, the program should be tailored to specific needs. The reason many companies do not have a sales training program is because management has never been able to find the time to set one up. These firms would do well to hire the services of an organization that specializes in developing sales training programs for all types of businesses.

22. Sales Compensation Plans.
If you want a sound sales compensation plan, you must first define your major aims and objectives. What they have been sharply outlined, it may become clear that you should have a straight salary plan, or a commission plan, or a combination of salary and commission. Unfortunately, many businessmen haggle over the details of the plan before they have determined their primary objectives. As a result they often succeed in wasting time and delaying the entire project.

23. Sales Personnel and Facilities
Your analysis of your sales goals and territory potentials should dictate the number and kind of salesmen assigned to any one sales area. This same information will also show you where you may need branch sales offices, warehouses or technical engineering personnel.

24. Customer and Dealer Promotions. Customer promotions play an important role for certain products like breakfast cereals and soap. The most successful companies carefully pretest all such promotions before risking a promotional campaign on an untried premium deal, sampling operation or prize contest. Many of these successful operations have been known to induce two to five million people to buy the promoted product. Dealer promotions should be pretested if you are to get full value on your investment. Constant "dealing," however, is usually to be avoided. It fails to stimulate purchasing because the buyer expects it as a matter of course.

It is wise to reappraise your cu

mer and your dealer promotion program to make certain it is properly serving your current needs.

25. Advertising Sales Messages. Effective advertising must have a sales story that compels prospective buyers to read or listen. Therefore, it must be tuned to the customer's ear. Copy testing, though not foolproof, can eliminate a considerable amount of guessing and error. The techniques used should be tailored to the copy problem and in most cases should be specially designed for your particular type of customer. For example, a new procedure for testing television commercials induces the typical viewer to "play back" what he has seen and heard. An analysis of these free responses reveals whether or not your story is making a deep enough penetration to produce a sale.

26. Profitable Advertising Media. Finding the most profitable advertising media requires a thorough knowledge of the customer markets for the product as well as the coverage of the publications, newspapers, radio, television and other media that can be effectively used to reach these markets. Too frequently an advertiser selects or approves a media list on the basis of his own personal knowledge or exposure to the advertising medium. Instead he should find out which of the many media will tell his story to the people he wants to sell.

27. Public Relations. When properly handled, a public relations program can open the doors to prospects that might never be reached through personal selling or advertising. Improperly handled "publicity" can bring nothing but trouble and grief to your firm. Like good selling and convincing advertising, a public relations program must be built by using all the available facts about the market, the product, the customer's use of the product and the company's selling methods.

You will find this check list most helpful if you will first select the marketing problems that should demand your immediate attention. Next check those that should be tackled this year. Then go back and select those that must wait until the primary and secondary problems have had proper attention. These check points can then be used as part of your overall marketing program.

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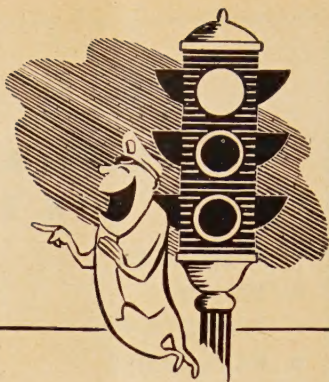
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Stop me...If...



There was a sad accident one day in the heart of the Ozark Mountains. A farmer's mule kicked his mother-in-law to death. A tremendous crowd turned out for the funeral, but it was made up almost entirely of men. The minister commented, "This old lady must have been mighty popular because so many people will leave their work to come to her funeral."

"They're not here for the funeral," said the surprised farmer. "They're here to buy the mule."

There were fewer wrecks in the horse and buggy days because the driver did not depend entirely on his own judgment.

Mechanic—"Which do you prefer, leather or fabric auto upholstery?"

Second Mechanic—"I like fabric; leather is too hard to wipe your hands on."

Son—"Pop, what is creeping inflation?"

Father—"It's when your mother starts out asking for a new hat and winds up with a complete new outfit."

"I knew them danged scientists would keep a'foolin' around until they did something they hadn't oughter," stormed the old man from the hills. "Now look what they've gone and did."

"What's that, Paw," asked his wife, "you mean the atom bomb?"

"Heck no," exploded the old man, "they've fooled around until now they've discovered something besides likker to cure a cold."

Stalin one day was giving Mao Tse Tung instructions in practical communism.

"Comrade," he said, "how would you make a cat eat chili pepper?"

"There are two ways," said Mao. "I could force it down him, or I could stuff a fish with the pepper and give the fish to the cat."

"Wrong," replied Stalin. "It's not compatible with our ideology. The first method is coercion, the second deception. You know we never coerce or deceive the people."

"Then how would you do it?" asked Mao.

"I would rub the pepper on the cat's tail. When this smarts the cat would turn around and lick its tail, thus eating the pepper voluntarily."

His car and her car met head on. Both drivers got out and, with fine courtesy so characteristic of motorists nowadays, both began to apologize profusely. "I'm so sorry," said the woman. "It was all my fault."

"Not at all, madam," the man responded with gallantry. "I was to blame myself."

"But I insist the fault was mine. I was on your side of the road."

"That may be true, but, my dear madam, I am responsible for the collision. I saw you coming blocks away, and I had ample opportunity to turn down a side street."

The farmer's wife lost a thumb when their light passenger car collided with a heavily loaded freight truck.

A few hours later when she was discharged from the hospital, the claims adjuster for the trucking company called at her home.

She suggested a settlement figure and the adjuster turned purple with rage.

"Madam," he exploded, "can't you see that your claim for \$50,000 for a single digit is ridiculous?"

"Maybe you think so," she explained, "but that was no ordinary thumb. It was the one I kept my husband under!"

The new recruit was finding his day of training very rugged. Having passed through the obstacle course to the next lap he fell in getting over the last hurdle. The officer in charge, noticing the man on the ground, asked what was the matter. "My leg, sir," groaned the man. "I think I broke it on that last hurdle." "Well, then, don't waste time just lying there—do push ups until the medic comes here."

A thirsty man entered a bar and went to the bartender, "Make me a very dry Martini, please—twenty parts gin to one part vermouth."

The bartender obliged and as he was about to serve the cocktail to the customer he asked, "Do you wish me to squeeze a little lemon peel in it, Sir?"

The Martini connoisseur was outraged. "Say," he barked, "if I wanted a lemonade, I'd ask for it."

The courtroom was crowded as the judge finished his lecture to the defendant in a divorce case. "So I have decided to give your wife \$100 per month," were his words.

The husband's face lit up. "That's fine, Judge. I'll try to slip her a few bucks now and then, too."

A psychiatric board was testing the mentality of a soldier. "Do you ever hear voices without being able to tell who is speaking or where the voices come from?" he was asked.

"Yes, sir."

"And when does this occur?"

"When I answer the telephone."

Contractor: "What do you want? I finished you two weeks ago."

Helper: "I came back to see if you were still in business."



"He bawled me out for doing it, but this is the second time I've caught him trying it!"